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THE WORLD PROCESS

—OR—

THE ORIGIN AND EVOLUTION OF LIFE, MIND, THOUGHT AND LANGUAGE

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—OUT OF—

THE ONE ELEMENT OF EXISTENCE

BY

ST. GEORGE

ST. GEORGE PUBLISHING COMPANY
MALTERMORO
FRESNO, CALIFORNIA

COMMENTS OF THE PRESS

ON

ERRORS OF THOUGHT

By St. George

"MIRROR," ST. LOUIS, MISSOURI

Errors of Thought

Justice cannot be done here or in any review to the enlightened and logical ideas of "St. George," set forth in the large pamphlet called "Introduction to Errors of Thought," and published by the Paul Elder Company, San Francisco. "St. George" has chosen his non de plume fittingly; for the task which he assumes is on a par with the destroying of dragons. He has taken the sword in opposition to the tyranny of opinions in modern civilization. Modern life attains its degrees of progress on the ruins of dead opinions. * * *

The present pamphlet is profusely annotated and illustrated by symbolical designs from ancient sources. It is intended merely as the fore-runner of a more complete work which is to follow. By all means, let us have as much as possible of the literature which "ignores the strait-jacket of orthodox formalities" and goes back to the beginnings of things for truer and more practical methods of thought.

THE CHICAGO EVENING POST

In the view of the author of this remarkable piece of work the ways of thought induced and fostered by alphabetic modes of communicating ideas is responsible for an intellectual fall of man into folly and divocrement from the truth. The author seeks to correct this fatal deviation by interpreting the "living truth" revealed in prehistoric and pre-alphabetical symbolism. There is a lavish display of erudition in his pages. His illustrations alone will constitute a valuable source book for the symbolist.

TRENTON, N. J., "TIMES"

Errors of Thought in Science, Religion and Social Life

Points out dangers of modern civilization, and traces wrong thinking on important questions from the pre-alphabetic ages to the present time. The author holds that hollow talk in school and church, in college, university and public life, is the danger of the hour, converting the virtues of natural intelligence into sham-intellectuality and substituting the emptiness of opinions for the normal powers of knowledge. He deplores the separation of the thinking consciousness from the living consciousness, which makes the faculties of thought self-sufficient and produces much hollow word knowledge, all of which misleads the judging and reasoning powers of the mind. The wrong tendency is very prevalent in schools, he says, while in churches it substitutes contradictory ideas of God and Satan for the living consciousness of God in the human mind, which is the elementary consciousness of the organizing powers of life, mind and thought, active in the process of existence, having virtues as a humanizing power which the conflicting ideas about God and the current theories of heaven and hell, now circulating as theologically established truths, do not usually sustain.

From this viewpoint he turns the searchlight upon established systems and economic problems. He says: "The reform-crazed American voter now calls for more special legislation, which does not increase his chances of peace and plenty, but which deprives him of his civic rights and liberties, and places more and more power into the hands of politicians and public servants, and more burdens on his own life." He says that there is too much desire for interference of federal authorities in local affairs. He recommends the establishment of a better financial system in the United States that would make this country independent of foreign capitalists and claims that too much advice about the tariff and other national questions comes from foreign interests.

This is a book written in a scholarly but very independent style, and calculated to stimulate any one's thinking powers.

THE SACRAMENTO "BEE"

The author states his purpose to be solely the correction of the ruling opinions that have a direct bearing on the fate of modern civilization and produce conditions of well-being and suffering in social life. It is a work on the practical application of thought and language as life-controlling powers in civilization. The arguments advanced show the author's intent to get at the pre-alphabetical way of thinking, which, "because of the natural simplicity and adherence to the powers of life, can readily lay a foundation for superstructural ideality."

Interesting to scholars and those who like profound reading.

SAN FRANCISCO "CHRONICLE"

The errors specially dealt with are those fostered in educational institutions and finding their way into legislation. Tariff reform, trusts, and taxation are considered from an entirely original standpoint. To the present agitation against the trusts the writer is vehemently opposed. He says: "The nations which labor to legislate trusts out of existence may be moving toward industrial suicide; they will probably not be able to compete with those nations which foster the trust system." But it would take a page to indicate the various matters upon which the author passes equally emphatic judgments. The excellently reproduced illustrations from Egyptian and classical history and mythology are a feature of the work.

FROM CINCINNATI, OHIO, "TIMES-STAR"

A California philosopher, who comparatively digests the sum of the ethical philosophies of all times and applies his conclusions to modern life. In "Errors of Thought," he launches into a discussion of present-day evils which all learned pragmatists will condemn but which offers an abundant field for conjecture as to whether he is or is not right. And the world lacks a just judge so to pass on his conclusions. It is a work of the highest creative philosophy.

ST. LOUIS "TIMES"

Certainly here is a worthy field indicated, and we gather from the pages in hand that the author is peculiarly qualified to perform his work thoroughly.

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THE WORKSHOP OF NATURE AND THE WORKSHOP OF THOUGHT

This volume contains a first attempt to explain the world-process by means of a modern language and by elucidation of the processes of vital digestion and of inanimate fermentation — if the word "fermentation" may be used to describe the non-vital metamorphoses or process which produces the phaenomena of fire and water and of their interaction in small, local or great solar-planetary ways.

The causes of living and dying are consciously active in the life-sustaining process of digestion, and they are unconsciously active in that inanimate metamorphosis which I call the process of world-fermentation.

There is a perceptible, phaenomenal outwardness and an imperceptible characteristic inwardness, a well-known temporality and an almost unknown continuity to all natural causation. The connection of this outwardness and inwardness is not as well known as it has been known in former ages and as it may again be known, if thoroughly studied. Only by making this connection clearly known can the working of natural causation as it is in itself become known.

Modern learning does not consider the natural connection between inwardness and outwardness of causation; and it fails to distinguish the integral continuity and the differential temporality in causation. Nature is a continuous process. Life of all sorts comes only in temporary forms, and it goes out of them.

Modern thought has lost sight of the integral and differential factors in the procedures or Logic of Life and of Death. It usually ignores or misrepresents the continuously working causes in the chain of natural causation. These workings I aim to explain as they are in themselves, and in their connection with perceptible out-

wardness and not merely as they may be spoken of by speculative scientists, theologians or philosophers, or by metaphysicians.

The civilized mind needs to know facts as they are in their integral and differential workings, and it does not need to know the theories which speculative thinkers invent in order to explain the causes of facts unknown to themselves.

The possibility or intellectual ability of fact-knowing and truth-telling has its rootings in the mind's immediate consciousness of natural causation. The possibility of evolving these rootings of consciousness into a living power or so-called Tree of Knowledge depends on the efficient use of a serviceable type of language—a type which can present the continuous changefulness of causation in vitally true ways—in ways true to the Logic of Life and of Death.

The causes which produce the phaenomena of life and death, of knowing and of thinking, cannot be properly represented by a merely analytic and terminological language, as is ours. The human mind, however, can provide efficient means of language to properly represent natural causation; but it cannot do it by guessing and theorizing; it must begin by recognizing vitality as the "Father" of intellectuality; it must proceed by considering the consciousness implicit in life as primarily representative of Fact and of natural causaton, and it must learn to vest its conclusions of thought into forms of language that fit the requirements of both fundamental Fact-knowing and superstructural Truth-telling.

To this end the thinking Ego must evolve the natural understanding of the living Self in accordance with the Logic of Life by providing means of language which have a living character Thought must not stray into syllogistic by-ways; it must not delude itself by mistaking knowledge of words for knowledge of Fact.

Guessing at natural causation and the verbal requirements for its elucidation is idle waste of time. The inwardness of nature's activity cannot be reached or explained by guess-work. The workings of the human knowing powers as they are in themselves and in their connection and dependence on natural causation must be known in an immediate and certain way, before the natural causes of living and dying can be made known by means of language or before the mind can begin to evolve proper and efficient means of language to represent natural causation.

In order to make known what the all-to-order-setting energy is doing in the world-wide process of living and dying, of generating and regenerating individual life and of forming solar-planetary systems, we must first know what this energy is doing in our bodily economy; and we must further know how language came to make it possible to convert the fundamental, unspoken consciousness of

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Our philologists have never yet studied the evolution of language. They don't know that various ages have evolved various types of language to serve various purposes of life. They imagine that our terminological and grammatical type can serve all purposes of Fact-knowing and Truth-telling; but it can not. It can serve the description of outer evidences, but it cannot serve the elucidation of that inner causation, which produces the evidences and the powers of mind to note them understandingly.

The world-process and causation in living and dying, of well-being and suffering, may be truthfully described in various ways by various types of language. The terminological type suits this age, and it fits into the intellectual effects of our education. The prosopopaia type and its living pictures suited former ages; and in that type all the Truth which can be told has been told in ways most interesting and edifying, if properly pursued. In this first effort of elucidating the world-process, we care not for any of the many alleged sacred writs from their first recorded appearance in the Chinese Yh-King to their last in the Kabbalistic book Zohar, although the now-unknown causes of the known evidences were depicted to better advantage in some of those writings than can be done by terminological type of rhetoric. An effective way of remembering the mind and body-making process by breathing and digestion is given in the Chinese picture of the "Word-Churn," often copied in antiquity, now forgotten. It depicts life as a digestive fermentation-vat supervised by a mental distiller. The mind-making process may be well enough compared to a distilling process, but the mental distillery seems to have been managed by word-working "moon-shiners" for the illicit purpose of instilling delusive ideas into the public mind. Reflective thought is a cold-blooded genius at best and usually "luny"; for it leads the attention of mind-power away from the radio-active focus of life. The reflectively thinking mind loves the cold-blooded and delusive words, and it looks with submissive awe upon intellectual lunacy. Silenolatry, the worship of wordy sense, has been the affliction of all alphabetically enlightened ages.

The illicit and illogical word-workers have looked upon the one unspoken and undefined God-consciousness in man as their special field in which to cultivate pretentious knowledge of the causes of life and of welbeing, and they have effectively advertised their word-made gods by polyglotous names as original factor in that causation,—factors, all supreme, which spoke in commanding voices to the hungry intellects of mankind. Modify an old name, attach even a new adjective to an old God-name and a new God is born to rule

life into explicit states of word-vested knowledge. We must begin our work of knowing by directing our attention to what antiquity called **"Find yourself"** in the eternal chain of natural causation and learn to know the Living Logos dioikon—i. e., the Life of Language and its immediate connection with individually conscious life and with world-wide to-order-setting energy; we must make clear to ourselves the difference between the continuously working not-self and the temporarily working self: the **discosmesis** and the

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the human intellect for better or worse: for better never, for worse ever. The illogical, syllogistic use of language is an inventor of mysteries and of wondersome tales of salvation and damnation. It labors to hide the causes of evidences, that it itself may be adored as a world-builder and ruler of Creation. Words have built no worlds. Logos, Verbum, Oum, Kol-pi-jah, Honover, etc., etc., have surely been humanity-makers onee, but what are they now? Do they make the integral and differential causes of life and death, of welbeing and suffering known? Are not all the apostatic churches in Christendom belaboring the intellectual and industrial ass in word-wise ways which ignore the Truth to turn life upside down and hang it like Agapitus over the "smoky fire" of delusions? Are other wordy and idealistic God-knowers and theophantasts than ours doing any better work for the shedders of sweat and the spillers of blood? Are any of the renowned idealistic word-knowers making life easier for poor, hopeful Za-Kar, the burden-bearing industrial Ass? If not, why not? Ignorance and prejudice are the mainsprings in the workshop of thought. Great indeed, are our mechanical thinkers in providing means to improve social life for the owners of gold, but great and growing worse is the slaughter of life on the altar of wordy wisdom dispensed by the agents of word-vested Gods—all of them discursive pretenders to the one righteous rule of life.

The ancient Teutons worshipped world-vitality as the original cause of life and of Go-right in their Allfadar and Allkuna, All-father and All-mother, but they excluded the intellectual word-workers from service under the plea that the cause of life is too great for worship in stoney, prejudicial confinement and wordy vestments. The ancient Americans carricatured the effort to vest world-wide causation in verbal vestment. But our enlightened thinkers worship wordy divinities in all the known languages.

Words and names are of value for the purpose of remembering Fact, but not for their own value in Truth. The old God-names, which the world no longer holds holy, are better means of education than the absurdly vowelized God-name Jehovah which the world now reveres as the living Truth.

Pictures speak impressively at times. Ancient art had ways of elucidating the impereeptible causes in nature's activity by pictures an dby the picturesque way of speaking, which served education and Fact-knowing in unsurpassed ways. The Chinese picture of the Word-churn, for instance, depicted the control of civilization by speaking thought as an intellectual

ekpyrosis. And we must not fall into the errors of self-objectivism. We must not make ideas of self the predicate for some wordy knowledge of the not-self. We must not be misled by wordy analogies. We must hold to the "Way of Life," to the Logic of Life and of Death in our use of words, if we want to tell the Truth about our nature.

The ability to tell the Truth depends on the logical use of language. Logic and Logos are intellectual twins active in the development of Right-mindedness.

The illogical use of words is the Father of Shamanism.

We must not imagine that the persistent delusion, known as Shamanism, is characteristic only of the intellectual life of the semi-civilized nations in northern Asia or of East India, China or

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distillation-process, analogous to the world-process which was described as a physical fermentation vat in its lower workings and as a mental distillery in its upper workings. That description seems absurd at first sight, but it has had a powerful influence on the cultural development of all civilized races on earth. It had made humanity familiar with the fact that mind-making is a breathing process while body-making is a digestive fermentation-process, and that death itself is an inanimate fermentation-process. The characters represented in that ancient Chinese picture have found representation in the personifications of gods, heros, saints and devils in all sacred writ, our Bibles not excluded. The Ramayana, the principle Epic of the Brahmins, labored in most extravagant ways to depict this Chinese churn-idea. Not satisfied with this epos, the old Brahmins wrote another, their longest epos, the Maha Bharata, explaining the intellect-making process by the workings of the word-churn. These efforts come in an absurd dress of phraseology. What sacred writ does not so come? especially after it has suffered translation and explanation by absurd word-workers, as are all exegitists.

Mind-making may be well enough described as a distillation and digestion process, which takes place in the human body, starting on the one side by physical eating and on the other by breathing vital tendencies from the atmosphere. The dry heat coming from the sun and the moisture coming from the earth become factors in the unifying re-digestion process which sustains life. Digestion means to make new life out of devitalized housings of old or other life. Distilling means to extract the character energy from dormant life and its physical housing, and either diffuse or concentrate the extract in the periechon. Heat and moisture may be said to work in the bodily economy as secondary causes to the radio-active character in it, which may be called the first cause.

The intellect is a growth as is body and mind. As this or that type of character controls this or that kind of body and mind-making in the bodily organism of the various species, so does language of one type or another, radio-active or circumspective, control the intellect-making in civilization.

Africa. Wherever the influence of letter-learning has made itself felt in the life of language, there Shamanism has found its rootings in human mentality. Shamanism is a type of mental delusion which originates in the illogical use of ill-defined words. Any ideal misrepresentation of the universal order in natural causation, when educationally propagated, leads into persistent error of thought and into sweeping shamanistic delusions—it leads to the worship or fear of false Gods or of false ideals, and to the woeful results which this worship produces in civilization. They who misconceive and misrepresent the order in natural causation must suffer the consequences which irrational ideality imposes upon life

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Language, if used as a "churn" (that is, kyriologically to focalize special consciousness in self-consciousness) has a living character; it has a Logos character, and having this character it has powers to develop intellectuality true to life.

The churning or cyclic workings of ideas diffuses vitality and makes the intellect grow, as grow the mental organs, in dendriform; it makes all branchings hold to the same rooting in life and work harmoniously.

All mental activity in civilization may be considered and called a distillation-process in which language plays an active part, either as focalizer or diffuser of vitality. So held the sages of prehistoric China. All other races copied this idea, and therefore have we learned talk of Logos, verbum, Oum, Honover, Kol-pi-jah, etc., etc., in the world's sacred writings, and in their exegesis.

I use the words **diakosmesis** and **ekpyrosis**, because our language has no words to describe the facts. My phrase, to-order-setting, is not sufficiently comprehensive. The orderly workings in nature are the result of a to-order-setting power which determines the use of means to the end of order. Therefore must the phrase to-order-setting be accompanied by anotehr phrase describing the use of means employed. Clemens of Alexandria, following other Fact-knowers, employed the words diacosmesis and ekpyrosis in the sense in which I use them: Diakosmesis, the continuity of to-order-setting in the process of nature. Ekpyrosis, the temporality of means which serve the end of to-order-setting.

All the mythological works of remoter antiquity which dealt with either the inwardness of causation or with the unification of outwardness and inwardness are falsely rendered by modern learning. All mythologies and so-called sacred writings are misrepresented in their essential meaning by our classical students. It may be well to remember this assertion for the present by the words "euhemerism and shamanism." The workings of natural causation and of the World-process were presumably elucidated in those old-time writings.

and vitality. The historic ages are the ages of letter-learning; and this learning has invariably inverted the natural working order of the mind. It has daemonized human character, and has caused it to make its way by tyranny, torture and death-dealing horrors. And the end of historic horrors will not come until letter-learning is recognized as a frequent cause of delusion and as a potential evil, if given too wide a scope and if irrationally used.

The clearer relative truths are fixed in well defined words, the greater their delusive force. This fact we will come to realize when we examine the influnce of mathematical learning upon the natural knowing powers of mind.

Looking in analytic ways through the spectacles of alphabetical learning at the evidences of fact, with intent to discern the causes of the evidences, invariably leads the thinking mind into misrepresentation of natural causation; for this causation is double-active and it works comprehensively as well as seggregatively; therefore it cannot be fairly judged or fully represented by the verbal means of single active rhetoric, which places only analytic terms at the command of the thinking ego.

Letter-learning is too largely given to analytic aspects of facts. Dwelling on these aspects vitiates the powers of mental comprehension.

Our modern theologians, like the theosophists of old, have everywhere on earth attempted to represent the universal order in

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The mind, which has suffered a reversal of natural intelligence by wordy learning, always asks for something beyond existence. It will not accept existence as an element, as the one element of living and dying, of knowing and thinking. It asks for something beyond existence—something before existence—some original or even pre-original cause—some "mia arche"—some "pro pater"—something supernatural—some word-made idea which goes beyond the possibilities of Fact. It is not to be satisfied with knowledge of active causes. It asks: If existence be an element, what was before existence? What is beyond it? The answer is **nothing**. There can be no argument with a mind that wants to know **nothing**. The mind which imagines that Truth exists in hallow abstraction is silly. Abstractions are hallow forms of Knowledge, but not essential knowledge. Existence alone is the true object of human knowing powers, and it is knowable; visionary nothings are thinkable into wordy forms. Words are means which irrational thought employs to create visionary nothings. The "**pleroma**" or fulness of Fact and the "**kenoma**" or hollowness of wordy learning stand apart as irreconcilably separated by the intellectual chasm which letter-learning has produced in the alphabetically enlightened mind and which no "pons asinorum" can bridge.

natural causation by God-ideas, alphabetically formed, or by other wordy personifications of ideas set into the frames of wordy pictures; they have not only failed to make the Truth known, but they have established faith in errors and in false Gods.

Philosophers have for long ages endeavored to elucidate the chain of natural causation. They have filled libraries with wordy learning; but they have failed to tell the simple Truth, because the means of language at their command did not suit the purpose. The mobile causes of nature's activity, cannot be represented by word-fixed ideas and hide-bound definitions.

Modern science has endeavored, in a tentative and theoretical way of its own, to represent the active causes in the order of nature by alleged "laws of nature," evolved by syllogistic inductions out of sensible observations. Every one of these "laws" is true to the evidences, every one is relatively true; but not one is true to Fact or to integral causation, and none of them exert an altogether beneficial influence upon the natural workings of mentality and vitality.

Famous thinkers have labored and labor still in the vain effort to represent the order in nature's work by mathematical formulas. The highest calculus is the most abstruse, abstract and the most misleading. There is no "constant factor" or uniformly working axis in natural causation upon which to base calculations of the orderly workings in life or in sidereal phaenomena. The to-order-setting in nature's activity is done on principles of **"changeful regularity"** and that fact no mathematician has as yet discovered; if one should discover it, he would find the vanity of mathematical effort to deal rationally with integral and differential factors in causation. Yet can these factors in causation be so dealt with by the thinking mind, and in fact, they have been so dealt with in the distant past. But we live in the present; its way and means we must employ to tell the Truth as near as possible. In this age it matters not whether we go to a soothsayer or to a speculative scientist, to a theologian or to a mathematician when seeking enlightenment as to cause and consequence. To whomsoever we may go, we will be given relatively true ideas, opinions, theories and hypotheses in explantions of Fact. If we accept these ideas as the truths, then we feed our mental powers on false and faulty representation of Fact and on indigestible ideals, which mislead the faculties of judgment, pervert the reasoning powers, and corrupt human character.

The scientific ideas of the active causes in biological and astronomical observations, although relatively true, are quite as untrue to Fact, as it is in itself, as are the ideas of ghosts and spooks, of Gods and Daemons.

No scientific theory fits the Fact; all fit the evidences in relatively true ways. Science does not attempt to deal with active causation as it is in itself. It deals only with aspects of so-called secondary causes and with phaenomenal evidences. These evidences do not impart any knowledge of the causes which produced them. Yet these causes we should clearly know that we may not misjudge evidences, as often do our judges and lawyers in Courts of Law.

The biological observations by microscope or other means may show evidences that the order of life is supported by process of digestion and breathing, but these observations do not show the active causes "why" this support.

The astronomical observations by telescope may show evidences that the starry heavens move, but these evidences impart no information as to the causes of such movements.

Considering evidences as apart from the one chain of eternal causation invites the desire to substitute guess-work, theories, and opinions for the natural and needed knowledge of facts as they are in themselves and as they arise in the immediate consciousness of life and of vitality.

All intellectual deviations from the to-order-setting procedures within individual life and in the world-wide tendencies to vitality results in delusive ideality—Shamanism. The older Kabbalists spoke of this substitution of delusive ideality for natural knowledge of causation as making the intellectual life of the race an unsavory artifice.

The Hebrew mind differs essentially from the Christian mind in the ways of thinking. The Hebrew mind, enlightened or illiterate, is inclined to think understandingly. It works diplomatically; it thinks beyond the meaning of words into the "unnamed desire." It is not easily deceived by words; it cannot be converted to the doctrine of God-guessers.

The Caucasian mind is inclined to mistake words for Fact, wordy theories for knowledge of causation,—syllogizing for thinking logically.

The Hebrew mind owes its logical tendencies to the educational influences which its theologicians have exerted upon it in former ages. The last of these theologians were the Kabbalists. Therefore my reference to them.

The later Kabbalists described the retrogressive development of natural knowing powers, caused by letter-learning, as a "four-step" descent from the realm of divinely conscious vitality (Azila) through the realm of human feelings (Beria) in to the realm of spoken mentality (Jezira) and beyond this realm into that of the speaking ego and its intellectual artifices (Asiya).* In "Azila," they said, rules the calm and naturally righteous character; in "Asiya" the daemonized character comes to the fore as a perverter and de

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If the Hebrew mind can think with better understanding than we can, we want to know why.

Our theologians should enlighten mankind as to cause and consequence, but they do not. They answer all questions of Fact by reference to the unscrutible ways of the unknowable God. They delude religious faith by misinterpretations of so-called scripture. The old Rabbis used scriptural pictures to elucidate facts, as our theologians attempt to do, but the Rabbis explained the meanings of these pictures in practical ways, so as to make them guides for thought and act. An imperfectly drawn kabbalistic or apocryphical word-picture, if understandingly explained, has a happier educational influence on the mind, than has canonical writ by exegesis misinterpreted.

Whatever there may be left of "Living Truth" in the alleged sacred writings will be found in the rabbinical and kabbalistic writings, and in the practical application which some rabbis made of these writings. Our Bible is little more than meaningless word-knowledge and name-knowledge, which comes philologically, historically, geographically, euhemeristically misrepresented. Our theological Word-workers have totally destroyed the original meaning of sacred stories.

Leaving the profounder thoughts in Jewish writ out of special consideration, I am inclined to think that the writ as a whole has evolved a practical instinct in the race, the gist of which from the Hebrew point of view might be summed up as follows: The Jewish God-consciousness is the one object of religious faith which has not been corrupted and deluded by words and names and which therefore still aims to make all civilization one cohesive family of humane and sympathetic co-workers. The God-consciousness of all other races has been destroyed by contradictory ideas of Good and Evil. Therefore do they all disagree upon Right and Reason and confront each other as enemies, potentially and actually. Contrasts and contrarities exist in all things, but contradictions exist nowhere outside of deluded thought. The strainings of contradictory thoughts destroy the health of civilization. Surely civilizations must die, like individuals, at the "end of days," but they do never reach this end: they are nipped in the bud or destroyed in the height of their flowering season by the withering breath of the opinionated "Zephon." Therefore, hope for the coming of Messiah who will save mankind from the effects of its own ignorance and prejudices! Keep your possessions in Gold; never invest more than one-third of your wealth in fixtures. Be always ready to decamp, and avoid the sudden outbreaks of sweeping calamities, which are sure to come.

stroyer of life's order in civilization. Letter-learning throws much light on the world without, but if not rationally used, it usually blinds the mind to the causes active within vitality. Therefore the Reason in all things must be recognized as the gist in all vitally important studies.

The Kabbalists, like most of the historic thinkers, were not true students of this gist. They were plagiarists who seized upon the work of master-minds to remodel and pervert it. Yet, at times, they came nearer telling the Truth than do our great thinkers.

The doctrine of the old rabbis seems to assume that there is no possibility of elevating the character of civilization above the character of the masses. Character is not subject to wordy reform. It is a slow growth. Men are not angels. When the angels of lesser understanding, Aza and Aza-EL came to earth, they fell into human error. Take mankind as you find it. Do the best you can for yourself and yours. The world is as it should be. Do not try to improve creation; improve yourself to come up to its best work. Following the rabbinical suggestions, the Jew has forever done with word-made gods. He will not play the burden-bearing "ass" to God-guessers. He has been for ages in the God-making business among the great races on earth. He does not use language to put burdens on his back. Thought is no God, to him, but a means of making life worth living. He knows that all wordy, thought-made Gods are suckers on the roots of vitality,—scripturally speaking, on the Tree of Life on which men feed and which they do not know. The Jew cannot be easily deceived by hollow talk. He is a natural, an inbred diplomate who looks to facts beyond all possible charm of wordy wisdom.

Speak to a Jew of making causes known by God-ideas or by scientific theories, if he is conversant with his Writ, he will probably think at once of some well pointed words in his Writ; for instance: **Nachash**, the old and deadly delusive serpent of the God-guessers, and **Lachash**, the charm of delusive letter-learning. Speak to him of intellectual enlightenment of the masses, of spiritual health and holiness, and he may think: "Muchsi," consumption, i. e., waste of vitality in the lust of thinking; good theophanic intention but overdone, overgrown **Levi-athon**, Nachash agalathon: good for consumption at the "end of days."

Speak to him of social reform and he will think "**chebeli Messiah**," i. e., "You are twisting in labor pains to bring forth a Messiah," or, "You labor to improve society by enlightenment without elevating and strengthening character, you would legislate civilization to death." He knows that reflective law-making and Leviathon have no fitness of survival, speaking understandingly as the practical old-time Rabbi admonishes his people to think. These old Rabbis looked practically after the health of the synagogue; they impressed "pointers" at Fact upon the minds of their people. The Jew in Rome may do as do the Romans, but in his inwardness he is not given to ideal delusions.

The intellectual development in our age is a sham as far as knowledge of the inward working causes of life's order is concerned.

Whoever does not understand the tri-unity of universal order in vitality, mentality and intellectuality cannot help belying causation; he cannot help speaking irrationally in opinionated ways of cause and consequence in the affairs of life. Our sages in school, college, churches, universities, legislative assemblages and congress do so speak; and this irrational way of speaking generates

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Our academicians in the apostatic churches and schools use words to "**charm**" the people. The "Seirim," our younkers, it seems, will have it so.

We need a few good "pointers" to find our mental **bearings** and **footings** in our fundamental consciousness of causations, in order to avoid wordy delusions; and we had better look to heathenish myths, than to our published Bibles for them. The Bible-work is not truthfully translated. Increditable as it may seem, the original Bible work was written or compiled by Fact-knowers, but word-knowers have translated and expurgated its original worth. Word-knowers now study the mutilated translations and that study makes word-wise and fact-foolish intellects. The Bible has been by ignorance translated and it is being read by prejudice; therefore does its study generate ignorance and prejudice. Let Jochibed (Jo-kebed) put her word-churn into the theological mind, and out will come a Moses.

The modern mind is not given to the science of "Kavanah," i. e., introspective thinking for the purpose of balancing mental contrarities and of eliminating the influence of wordy contradictions and delusions.

The Egyptian Hierophantes considered the process of nourishing and developing the intellectual powers and of balancing and checking the contradictory and tangential tendencies of speaking thought so difficult to understad that they inscribed words to the following effect beneath their image of **Neith**: "My vail (that of the rhythmic and to-order-setting use of language) has never been lifted."

Neith is a personification of the "female" Holy Ghost of ancient Egypt. She personified the power of harmonizing and unifying the popular ideas of outwardness and of apparent condition with the inner order of causation in social life, approximately, as far as the to-order-setting use of language can come to the order of natural causation and life's requirements.

We live to overcome difficulties and we may be able to lift the vail of Neith, as well as that of Isis, as far as the Hierophantes could do it.

The word **Trinity** should be remembered, not in its theological meaning, but in its matter-of-fact meaning. All character-energy in the process of nature works along triune procedures; it works in lateral ways into **double-extent** away from the line of to-order-setting and back to this line. All matter is moved by character-energy toward and away from sun and planets, always crossing the High-way of Life. All life works laterally into masculinity and femininity, and back to the crossing-point, productive of progeny, into the High-way of Life. Thought in words embodied works in the same way into lateral side-issues and back into line with the Reason in all things. The difference between procedures in life and in death is mainly one of degree in one-sidedness. Of that later.

woeful results in civilization. When evidences of adverse conditions are not placed in the true light of the causes which produced the conditions, then wrongful means come to be applied in wrongful ways to deal with unsavory conditions. Such means are now being applied by our political representatives.

No man is intellectually sound who does not know the difference between evidences of fact and Facts as they are and who cannot clearly see the active causes which produce evidences of facts. Mistaking the evidences of facts for Fact, as it is in itself, is as grave an error as mistaking the verbal symbol for the Fact symbolized. Both errors lead to shamanistic delusions.

The mythology of the ages and races is not a hap-hazard growth, nor is it the work of ignorance. It represents the natural growth of vitality into mentality and intellectuality, and the development of various types of language and of the corresponding God-consciousness. It should be studied as a whole and not as separate fragments, and its study should be pursued through the study of language and its connection with the consciousness of life. That connection is of a two-fold kind; it has its inwardness and outwardness; its up and down growth; its anodos and kathodos. This growth has been compared to two trees, one rooting in the sky, like the shekinah, the other in the earth. The branches of these trees intertwine and "speak into each others' ear," said antiquity. When we will come to look at the microscopic representations of the dendriform growth of mental organs as shown in my glossary, we may see how true is this saying of antiquity. There is a sensible or historical outwardness and a reasonable but imperceptible inwardness to all truly mythical representations of Fact. This inwardness and outwardness need unifying in self consciousness. In Fu-hsi's formula this unifying work has been done.

The workings of natural causation can be studied through mythology as well as through biology or astronomy; and if studied rationally to a finish, Fu-hsi's formula stands verified. The euhemeristic study of myths or sacred writ is an absurd endeavor.

The Hebrew language has been called the "Midwife" at the birth of the Sibyls, who elucidated the workings of natural causation. The inwardness of that language we might study with profit, but our scholars prefer the outwardness and hollowness of the showy Greek and Latin languages.

The ancient Hebrew language was a remnant of the Kyriological type. Its old roots directed the attention of thought to the focus of causation from all cyclic changes and from this focus to all cyclic changes. This fact modern philologists have not yet discovered or come to understand. The rhetoric of the Hebrew language was a "flow" which followed the order of causation in nature's activity in twofold or fourfold ways, but never by contradictory terms. The many roots of words which express apparently opposite meanings denote changeful "stasis" and "apostasis" as melting into each other in

EVIDENCES OF FACT ARE NOT CAUSES OF ACTIVITY

The alphabetically enlightened mind trusts to its knowledge of analytic words for power to know the inwardness of fact in a vitally sufficient way; so trusting, it is misled into the realm of contradictory opinions, the exchange of which can never grind out the Truth, but it can and does start and carry along the deadly "War of Words" for opinion's sake. Active causes in life are much like the causes productive of inanimate phaenomena; i. e., they cannot be fairly represented by contradictory terms. When thinkers

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the logic of cyclic changes. Surely, the Hebrew language was evolved by Fact-Knowers or by intelligent imitators of Fact-Knowers.

The Samothraeian Hebrew personified the **axial** workings of Kyriological language upon which the logical **worth** of language depends as three character-powers. First: **Axierus,** the upright central axis, which adjusts itself to the world-axis, the so-called "middle column" in the causes of life's evolution,—the column which comes symbolized by the letter **vav** of the Kabbalists. Second: **Axiocersa,** the one (feminine) half of the lateral axis, referred to by the letter **He** of the Kabbalists. Third: **Axiocersus,** the other (masculine) half of the lateral axis, referred to by the letter **Jod** in the Kabbala. These three letters are called descriptive of conscious emanations from vitality.

The three characters were depicted in triune form of an over-turned T and placed above the name **Casmilos** (Kadmos, the pre-paradisal Adam and inventor of the Hebrew alphabet), the alphabetical speaking power which held to fundamental principles or God-consciousness, i. e., consciousness of to-order-setting power in world-vitality, in order to make the logic of thought follow the Logic of Life and Death.

An ancient ideogram presents these three triune characters in a square, for the Hebrew will square the rhetorical zodiac to make new terms fit the old roots of his language. The whole design bears the inscription "Hygiea," denoting the **healthful** use of language.

Essentially this Hebrew idea fell in line with the great learning of ancient China at least as far as the axial workings of focalized vitality in families of digest-centers, in cell-life, are concerned. The half axes, Axiocersa and Axiocersus, represent the dividing and meeting axes in the Tai-kih; that is, the workings of the centrosome, as we might say, using our biologieal terminology. The unifying of these half axes in the focus of life produces the Axierus-character, the oneness of the regenerated character in the son or daughter cell.

Axial workings in the centrosome, nucleolus and seed-string of cell-life nourishes the cell-family, causes it to divide itself and to propagate so-called daughter-cells. Therefore is the axial work most **worthy** of consideration. All great cults have depicted axial workings as thus **worthy.**

Theism and atheism, gnosticism and agnosticism, idealism and pragmatism are all incarnations of ignorance and prejudice, produced by the illogical use

aim to argue about the causes of color by contradictory terms of black and white, they never can arrive at the truth; for black and white are not colors; they stand in no connection with the causes of color-knowledge in the living self, nor with the color-stuff active in the not-self. Contradictory terms are no means of telling the truth about causation. They make both natural intelligence and acquired intellectually move in very uncertain, tangential ways which lead away from integral Fact-knowing.

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of thought and language and its "wild," irrational guesses at natural causation.

The Greek and Roman Myths which are taught in schools are a late imitation of older myths. The Sibyls spoke through branches of the Hebrew language long before Homeric epos came into existence; and ancient China's culture antidated the Hebrew tongue by uncountable ages. It had fallen into final decline before history dawned to known civilizations. Speaking mankind must have inhabited the earth for long ages before the human mind could formulate integrals and differentials of causation as did Fu-hsi. How puny and insignificant is all modern knowledge of life and death, of biology and astronomy, when compared with the almost forgotten and totally ignored Chinese cosmogony.

Education and finance are two active causes which originate in human mentality and which make and mar civilization.

Of the one cause we know more than of the other. The educational institution, we know. All there is to its work and efforts is contained in published words. Its errors and shortcomings are known only by adverse opinions; they are not recognized in their inwardness; they are not known in their bearings and footings on life as they should be known and as they have been known. Verbal delusion and reversal of natural intelligence are among these unknown errors and shortcomings, and these we should remember by some word or name to bear them in mind for later investigation and a readier understanding of evidences.

For the purpose of supporting this understanding the Hebrew scholars may remember the words Nachash and Lachash. The Christian scholar may remember St. Agapitus as a victim of academic reversal of natural intelligence, depicted as hanging life upside down over smoky fire.

Finance is known to the masses by the value of the dollar only; the inwardness of our financial system and its bearings and footings upon civilized life are not generally known. The name of Mammon is known; but Eliphas, the character-personification of the active cause in the financial policy is not known to our people, nor to the academicians. **Eliphas** we should remember, that we may not forget to look into the inwardness of the financial system.

We have to look for other than our terminological means, if we want to know the causes which make and mar civilized life. These means we must secure even if we have to go to the now tabooed Writ.

All our congressional sages do argue questions of life, by means of contradictory terms and in the devious ways of opinions. They accuse each other of falsifying facts, if not even of deliberate lying. Note the words and works of our present national congress and administration. One congressional sage argues that submission to foreign policy causes national disaster—another even more learned sage retorts: "Liar! Our own foremost workers in national prosperity impoverish the people. These workers we must destroy; our national sweat-shop we must close and buy ourselves rich in foreign markets." Thus learning reverses the natural work-

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After Fu-hsi had formulated the integral and differential causes of living and dying, the Hebrew language had become the intellectual "midwife" of the many Sibyls which are accredited with having told the undying Truth in living pictures. This fact is not recognized, but it is a fact. In order to know this fact and its importance we may do well by bothering with Hebrew words and ideas.

The sad and a thousand times repeated story of the industrial and commercial civilization can be told in the Kabbalistic way by six words, all written much the same way. The story is that of the "tunefold ass"—the "ever to be remembered":

Za-Kar, which in its intellectual and industrial advance unwittingly assumes the orchestral leadership in behalf of the financial Lion, "harps joyously to the progress of destruction." See the Egyptian carricature in Proleg. to World-process.

Shekem: "Shoulder" against shoulder, i. e., pit the Ishmalites against each other.

Sakar: "Wages," payable in Gold, which the ass cannot eat and which comes back to the payer.

Shakam: "Load up" the ass,—with debts payable in gold, removed from his possession and control.

Sakal: "Instruct," diplomatically about black and white to avoid throwing light on the inwardness of facts and on the "unnamed desire."

Shikkor: "Drunk"; make the word-working asses intellectually drunk with mysterious enthusiasm for any wordy fake.

Finale: War to the Knife! from secret diplomacy to Armageddon.

Thus the Story of historic Civilization is told in five or six pointers. The mind used to look diplomatically for facts beyond the words can understand the story so written.

If I refer to any secred Writ, I do it to give the modern mind its natural **bearings** and **footings** in Fact-knowing, that words may not deceive it.

Words, well pointed at inwardness of character, fasten "Living Lights" into the intellectual sky of human mentality and make short work of long stories.

ing order of intelligence and corrupts the intellectualized character, until it pursues the wrong way unknowingly or even wilfully. For instance: The strike sympathizer opines that the strike-breaker or his employer did the murderous work in their own anti-union ranks in order to hurt the strikers' cause in public opinion. The devil ever says: God is not good. It seems that life knows no truth which a liar cannot prove false. No lie is so foreign to truth that the perverted character cannot induce the blinded minds of some people to place their faith in falsehoods and false gods, or falsifying agents of alleged divinity.

The conditions of labor, finance and general prosperity or adversity in our civilization are in evidence, so also is the congression-

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All character-energy in nature, whether it be the original cause of fire, water, magnetism or electricity, earth, air, life, mind or thought, or of expression of the human will-power is radio-active in its inwardness. Radio-active is all mobility and motivity in the ways of life and of death. Character-energy is always radio-active, in opposite and contrary ways; it works toward and away from a center by four-fold polarity, into spherical form of four dimensions: **Double-Extent, Height and Depth.** It works in spherical cycles. The burning candle is radio-active not merely in its outwardness but in its inwardness; it could not burn if the radio-active character tendencies and capacities to combustion were not within it. It diffuses light into spherical **Double-Extent**; and it draws in spherical ways on its environment for some nourishment of its flame. It works up and down; working below, it burns up stearine, working above, it ingests nourishment for its flame and it emits heat, etc. In its outwardness it is a **smoky fire**; in its inwardness it is **smokeless radio-activity.** All energy works in **spherical cycles** from **atomic** inwardness outward, from outwardness inward; and it works at all times in both integral and differential ways which none of our mathematicians have been able to represent by words or figures. * * * * * * *

These ways are those of **counter-procedures** which characterize all inanimate mobility and vital motivity. Counter-procedures have their origin in **atomic** energy. All character-energy is atomic, because its duality is indivisible. The original meaning of the word atom does not refer to any minute particle of matter, but it refers to the **indivisibility of double-activity** in focalizing character-energy. It refers to the elementary energy in nature's continuous activity, which causes both the ingoing and the outgoing (the Chinese, Yang Yin; the Greek, diapheromenon-sympheromenon) and which makes nature a continuous process, all divisibility of matter and temporality of form notwithstanding.

The interactive and counteractive principles of procedures in nature, which sustain the double-activity of all character-energy work continuously, but the double-active character-energy does not occupy the same material

al work; but the causes of these conditions and of congressional endeavors remain largely unknown; they are represented only by contradictory opinions. Yet are all these causes knowable and controlable by rational judgment and executive determination.

All conditions in social life arise in knowable powers of life, mind and thought. There is a knowable mainspring in congressional endeavors, and usually there are also some **unnamed desires** of the diplomatic and political kinds in or behind these endeavors. This mainspring and these desires might be brought to light by

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housings. The continuity of nature's activity is due to the indivisibility of double-active character-energy which never exhausts itself in action, but being indivisibly double-active always in changeful regularity rests and draws in new supplies of energy from the subservient stuff of existence, thereby rendering some of this stuff inactive, inert, dead, in part. Some part of the stuff of existence is at all times made to supply the expense of character-energy to keep the universal clock-work or fermenting vat of mental distillery in continuous activity. No activity can sustain itself without food or fuel. Food and fuel supply the inner energy through its outer housings. That some energy may continue to act, other energy must be sacrificed or made to yield supplies. Creation out of nothing is nonsense. The numskulls who cannot understand what makes nature a continuous process have invented the silly idea of **Creation out of nothing.**

The principles of counter-cycling symbolized, partly in the Shekinah, work eternally or continuously, but the individual life, in which these counter-cyclings occur, work only temporarily as means-providers for the sustenance of double-active energy, now supplying this side, now the other side of it, to compensate this or that expenditure and avert final exhaustion. The workings of death supply the workings of life and vice versa. The entire sidereal system is a graveyard in counter-active stages of development. This inanimate system supplies the "Way of Life" with needed energy for continuity work. The sun and its planets furnish the heat and water for the digestion process; but the field of conscious energy (Shang Ti or En Soph) generates the "Gist of Life"—the thymos or bioplastic energy in the **anathymiasis** or world-process.

* * * * The natural counter-procedures of mobility and motivity work in spherical cycles which are not under consideration by our mathematicians, but these cyclings must be made known to give thought the necessary footing in Fact-knowing, whether it concern the minutest form of life or the solar system. Many are the short-comings of modern learning. Our physicists do not even know that the word "atomic" originally referred to and should still refer to the indivisibility of the **duality** or bi-axiality of character-energy, and not to the ever divisible matter. The original atom-idea has

The mind which has been developed to think about causes of physical evolution only, should not attempt to read the foot-notes which appear in smaller print. These notes are intended only to prepare the ground for the phychological study of the causes in mental and intellectual evolution, as they appear in the profounder learning of antiquity.

The pure Anglo-Saxon mind is not qualified for these studies. The simplicity and fixed positiveness of its rhetoric largely disqualifies it for the study of the imperceptible workings of character, although it gives the race great efficiency in dealing with perceptible outwardness.

rational investigation, for they are the results of private, but knowable, discussions, deliberations, determinations and orders of procedure; they originate in powers of life and mind and in ways knowable to mentality and thought. If the causes of deranged conditions were known, the derangements might be set to order, provided, of course, that there be an efficient, rational power to do the work. Deranged conditions cannot be set right by knowledge of the evidences only. The causes of the derangement in evidence must be known before to-order-setting can be successful. Opinions can cause derangements, but they cannot do rational work, they favor partizan issues, they are partizan forces. If the opinionated mind were capable of doing rational work, then it would abandon opinions and express itself in rational judgments.

THE PRINCIPLES OF PROCEDURE IN THE TO-ORDER-SETTING WORK OF NATURE ARE THE TRUE PRINCIPLES OF THE LOGIC OF THOUGHT

The causes of social conditions are hidden in the complexities of life, mind and thought, and possibly they cannot be made known as easily as the causes of physical phaenomena. All active causes, however, come connected with the same principles of procedure* which control the workings of life and death; all sustain or disturb the order of life and death. The knowledge of principles is the guiding thread to judgment of causes and to the solution of all problems, be they physical, mental or social problems.

The true elucidation of the principles active in the workshop of nature makes known the chain of causation in physical, mental and intellectual activity. This elucidation is not difficult; it is only a matter of the rational use of mental and intellectual powers and of the employment of sufficient and efficient means.

Unfortunately the modern mind is never studying the principles of procedure in Nature's workshop; it is inventing ideal principles and substituting these for the principles of life in all its

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nothing in common with the modern materialistic idea of molecules. Radioactivity is the one continuously working cause in the world-process; all else is of temporary existence.

The rabbinical writers liken the mental growth of human consciousness (shekinah) to a temporarily burning candle in comparison with the continuity-work of radio-active consciousness, as far as embodied in solar or yearly cycles (Jahrzeit candle).

phases. Alphabetically enlightened mentality is ever trying to uplift mankind into the clouds of wordy ideality and its delusions.

When the mind loses its physical footing in the natural consciousness of life's fundamental order and requirements, then it needs fails to sustain the order in vitality by its thinking consciousness.

Thinking in illogical and unprincipial ways by means of unsuitable words causes the mental derangements which impose undue hardships upon individual and social life. When thought leaves the physical foundation of life, then it flutters about impracticable theories.

For the purpose of presenting the difficulties and requirements of Fact-knowing to the mind through the eye, the Chinese and other races have produced pictograms. The accompanying illustration presents one of the most important of these pictograms: **K'uei Hsing,** the ruler of star-ideas, is a personification of the genius of the "diatheke," which connects the consciousness of life, active in nature's workshop of nature, with the word-vested consciousness active in the workshop of thought in such a way that the **logic of thought** conscientiously follows the **Logic of Life and of Death,** as is requisite to Truth-telling and to rightful determinations of conduct.

Ku'ei Hsien, who judges the inner character-energy in conection with its outer workings.

The dragon, Ao Yue, upon which K'uei Hsing, the alphabetical educator, stands with one foot, represents the fundamental union of world-wide tendencies to vitality with individual life. Ao Yue resembles the old-time Hebrew idea of "nephesh" (elementary life inhaling consciousness to evolve mentality) and the Phoenician Hebrew Atargatis (thought in the workshop of nature)—the Sanscrit Raghu as the healthy alter ego of the unholy Kadhu, the Greek Ketos—and distantly the Dagon and Derkato of the older Babylonian Jews.

The Chinese know this medal as the (intellectual) currency of the Tao Kuang Times. (Tao Kuang T'ung Pao.) The reverse side of the double medal bears the inscription: Chih Jih Kao Sheng, i. e., Pointing to the day of lofty promotion, either in college or in coming to know the source of Life and of Knowledge. Perhaps this inscription refers to an ascension-idea, to a translation from earthy life and character into the devine—to an anastasis or

The alphabetically educated mind thinks without criterion of certitude and usually without any knowledge of the "law of evidence." Therefore does it have faith in this or that contradictory statement of fact. Therefore are our sages nothing more than theorists who suffer from opinionated insanity and from intellectual reversal of natural intelligence. Because of such reversal, humanity suffers now as ever.

Intellectual shams are a thing of fashion. Sophistry of some kind is always in fashion; sometimes it is theosophistic and sometimes it is superficially scientific, as at present. Sometimes the

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apostasis into the opposite side of life's cyclic way,—from individuality to universal vitality or regenerative seed-energy, or sewage, as the case may be.

The seven Stars, Pei Tou, in the field to which K'uei Hsing points, are vulgarly, but significantly known as the "dipper"; they symbolize the "four-footed" and "three-legged" **diatazis** in the to-order-setting procedure of nature. This **diataxis** is the all-important gist of the Logic of Life and Death. It is easily studied by the microscope observations of the axial workings in digest-centers of cell-life, through the regular changes in the mind-making nucleolus and the body-making centrosome.

In remoter antiquity, before the invention of letters, star-signs served in the development of the aphonic sign-language, as letters now serve in our alphabets, to give permanent form to ideas concerning facts. These imaginary star-signs served far more efficiently in Fact-knowing than letters can ever serve, but astrological foolishness came to mistake the star-symbols for the Fact symbolically represented and the aphonic sign language lost its virtues. Moreover the development of civilization needed letters to describe the outwardness of interacting things and men lost their interest in intrinsic Fact-knowing. What they could not know by letters, they came to consider unknowable. Much important but now forgotten language of Fact was represented in Zodiacal signs and by aphonic signs in general.

The ancient Fact-knowers had no microscope to study evidences of the to-order-setting, but they understood the connection between life, consciousness and language; therefore they had ways of studying the Fact, and they knew how to present it by names, pictograms and explanatory stories. It is well to remember such names as K'uei Hsing in order to hold the mind to the all-important subject of principles, until we get at the stories and the Facts.

K'uei Hsing has an alter ego **Chung K'uei** (gr. Eggastrimythos), who speaks evangelically (see glossary), from the within of the self-conscious digest-center of the changeful causation in the workshop of nature. I shall produce Chung K'uei's pictogram in the text of this work, to explain the difference in speaking from the within of self-consciousness, as the metaphysicians would like to do, and in speaking from the without of special consciousness, as science does.

public taste is developed to call for alleged knowledge of first causes, and at other times it calls for advertised knowledge of secondary causes. Sometimes the inverted sages exalt astrology to make the people believe that the distant stars control life on earth; at other times sages of inverted intelligence exalt astronomy, telling the world that universal gravitation causes or controls the movements of planets. An age which imagines that the law of gravitation applies to sidereal phaenoment is non compos mentis. The delusions of any age are so charming to the deluded that they

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In substitution of the Chung K'uei pictorgram, I produce here an ancient American pictogram of the same order. The accompanying illustration is a copy of an immense altar-marble from ancient North America—the design is virtually a replica of the Chung K'uei pictogram. I have explained its

An American pictogram which illustrates the difference in speaking the naked Truth, after the manner of nature, from the inwardness of character and of speaking through the fixed weavings of gramatical rhetoric.

meaning in the glossary under the heading of **Heimarmene** and **Tyche,** as some Greeks called their personifications of eternal continuity in the order of causation and the uncertain temporality which beset this order.

The literal use of terminological language is an adventitious cause which disturbs or sustains the order of life in the chain of eternal causation. And this fact is under discussion between the figures in the Chinese pictograms as well as in the American pictogram.

The Hebrew Myth-writers have renamed the character and knowing power personified in Chung K'uei, as did the Egyptians and the Greeks, who described it as a bridging power (gephyraios), which connects the workshop of life with the workshop of thought.

The Hebrews have also renamed the original K'uei Hsien personification. They have called it **Zebaoth,** the **to-order-setter** of star-ideas, of ideas educationally fixed in the intellectual firmament of the mind; they make their Zebaoth a predicate of their J. H. V. H., their conception of **to-order-setting**

will not be disenchanted; the intellectual perverts will move in the way of intensifying delusions until death wipes out the error.

The study of nature in analytic ways by alphabetical means is a procedure against the nature of things; it generates theoretical and opinionated intellectuality at the expense of rational mentality and vitality. The process of nature should be studied through the eye by comprehensive pictures which present the active causes in their connection with phaenomenal changes along the orderly

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power in principles of life and death.* These older Hebrew sages still knew that vowelizing the writings in consonants, which point to rhythmic order of life and death, takes the character out of letter-learning and puts in into "hollow" sounds. None but a nincompoop will vowelize the Tetragrammation of J. H. V. H. and call it Jehovah, aping the Jew-baiting monk Galatin.

The name **Zebaoth**, it may be well to remember for the present. That name connects itself with the oldest kabbalistic and gnostic learning, and strange enough, or almost increditable as it may seem, that learning included some insight into the physical facts which concern the inner workshop of nature and which are now unknown to learning of all pronounced kinds. We must not judge the whole of that Jewish learning by the parts which apparently present absurdities. The kabbalistic ideas of **themura, gematria, notaricon** and of other fiddlings with letters and figures may appear to us as an absurd use of means to the end of Fact-knowing, but the Jewish mind is little given to absurdities in its undercurrents. In them dominates a practical strain, even if the Hebrew word-workers did try to square the rhetorical zodiac to make delusions easy for the thoughtless masses. The Kabbalists know two kinds of gematria, or even learning in general: Kabbala Ma'asith which leads thought about outwardness and practice, and the Ijunith, which leads thought into the inner workings of causation and into diplomatic endeavors. Thus there are two kinds of knowledge, one kind for the common herd, another kind for the chosen initiates, and a logic for those without the circle and another for those within it.

Wordy visions for the withouts; pointers at Fact for the withins!

The very rooting of the Kabbala in the book Jezirah may be worm-eaten by Pythagorean abstractions; but kabbalistic thought as a whole has a life in the Jewish understanding of Facts, and that life we should consider as well as the distant rootings of our own knowing powers.

The Jewish mind-power has produced thinkers superior to those of our race. Many a Rabbi had thought-powers superior even to those of the great Herakleitos of Ephesos, the profoundest thinker of our race, whose words and thoughts I shall use in this effort to begin with.

The Jewish sages seemingly knew well what no modern evolutionist has as yet come to know, i. e., the difference between mind-making and body-making. They knew that the breathing of vital energy from the atmosphere was a mind-making process which centered in the character-powers of mental

workings of nature. Of these pictures we have not many; and those which we have are misrepresented by polyglotous monotheism and by euhemeristic tendencies in our classical learning.

All human knowing and doing powers have their footing in vitality. This fact the Kabbalists, who had borrowed ideas of evolution and involution, have represented by their word **Shekinah.**

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digest-centers active about the **Crossing-point** of the world-axis with the individual axes of mental digest-centers (see nucleolus in glossary); and they knew that digestion was a body-making process which centered in the character-powers of physical digest-centers active about their individual axes (see centrosome in glossary). They understood the workings of biaxiality in atomic digest-centers and the axial adjustment of the individual microcosm to the universal macrocosm which controls hunger and satiety (chresmosyne and koros) with changeful regularity in cyclic procedures—procedures which they described by ideas of "Time." They had names to distinguish the two kinds of character-powers in mental and physical digest-centers and they had stories to explain their workings. These stories have lost their meanings, because they have been robbed of their rhythmic character and form. See Jacob's ladder in glossary.

The work of nucleolus and centrosome in cell-life is rhythmic, and only rhythmic forms of speech can truly describe it. Such Hebrew names as Ahab, Ahi-ram, Ahi-eser, Ahi-kam, Ahi-jah and their alter-egos Ahi-tophel, Ahi-muth, Ahi-melech, etc., etc., represent personifications of various co-operative character-powers active in the **mental distillery** of world-vitality. All these characters work about the "**furnace of smokeless radio-activity**" within, and of smokey fire on the without of the workshop of nature; and **Penu-EL** is the personification of the **metaboling power** that "**times**" the workings of the character-powers in the microcosm of the digest-center as in the macrocosm of world-wide sidereal fermentation.

I am willing to recognize El-Beth-el as the alter of radio-active rhythme where individual life works in harmony with universal vitality. I am not going to describe the world as Beth-EL, the Household of God, nor civilization as Ma'asse Merkaba, the Heavenly Hierarchy, "where rhythms of throbbing life and of colour and sound prevail."

I am going to describe only the physical workings of digest-centers and of ferment-centers in semi-pragmatic ways, as links in the endless chain of natural causation, and I will not take the causes of colour in the chromosome of cell-life into consideration at present any more than the rhythmic consonants engraved on the tongue of the northern god Braga. The physical workings of nature must be explained before the thinking mind can cope the workings of mentality.

Fact-knowing, Truth-telling and Right-doing make a tri-unity of demands on the intellect—a tri-unity which stands on two feet: **Cosmogony** and **ethics.** These "feet' we should remember for the thinking minds needs **bearings** and **footings** in its now unspoken consciousness of natural causation, and we will

That word we may do well to remember, even if we discredit the school of the Kabbala, as we should.

If I use the Hebrew and other uncommon words it is not because I assume that there is any truth in them, but because they come defined in ways which make them serviceable to draw vitally

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have to look for verbal ways and means to secure these footings. In the above illustration K'uei Hsing is shown in the attitude of climbing the Jacob's ladder of evolution. The cosmogonic **footing** is indicated in his straight leg—the ethical **footing** in his elevated leg. K'uei Hsing unifies these two footings in his intellectualized consciousness of life, in his conscience and will-power. He unifies the **mind-making process of breathing** with the **body-making process of digesting.** He connects and unifies Cosmogony and Ethics—the inwardness of the workshop of nature with the inwardness of the workshop of thought. He personifies the **Living Bridge** between Mother Earth (K'wan) and Father Heaven (Ch'ien). He does from the physical side of Fact what Chung K'uei, his alter ego, does from the intellectual side.

The ethical footing in Fact-knowing characterizes Chung K'uei's understanding; it is in his knowledge of the character of living language, which the Greeks called **Logos dioikon** and the Jew called **Shekinah**; the God-given **Verbum** of principial procedures to Fact-knowing, Truth-telling and Right-doing. Into the subject of ethics and its dependence on the rightful use of language I will not enter further in these pages than is necessary to explain the cosmogonic footing by available terms.

But the physical workings should be explained after the rhythmic workings of character energy in natural causation. The causes which move the planets with **changeful regularity** in the solar system work rhythmically in accordance with **three-legged diataxis in alternating polarity,** and this diataxis in the orderly way of nature's sidereal workings is not very unlike the **four-footed diataxis** which controls the rhythmic workings of digest-centers in all elementary cell-life.

Astronomy and biology deal at present only with evidences of nature's activity. These evidences depend on the same **to-order-setting causes**—on the same **changeful regularity** of polar alternations and metabolings in to-order-setting energies. When we look through a microscope at cell-life, when we see its cell-string go to pieces, when we see the poles of the centrosome spread, when we see the cell part in division and reunite its digest-centers about a new nucleus, we see evidences of rhythmic causation, just as we may see similar evidences in sidereal workings through the telescope, if we know how to look. When we reduce these evidences to their dependence on natural causation, we have to do with rhythms in the **changeful regularity** of nature's procedures. The integrals and differentials of universal and individual causation work in rhythmic ways. These ways no scientist can discern or know; but yet they are knowable; they appear fully and properly formulated in the **Kua,** and they have been depicted, in ways true or false, by all the presumptive fact-knowers on earth, who attempted to write mythical pictures in rhythmic form.

true pictures, if used understandingly and rationally. Mythical names and semi-mythical words have often been formed by Fact-knowers with a view of throwing light into the workshop of nature and of evolving true free-agency character-powers in individual and nation. Let us not undervalue these names or mythical phrases. They often have a value which terms, when metaphysically used, never have.

The word **Shekinah*** has no equal in our language; it means that **out of world-wide tendencies to vitality are evolved all facul-**

Rhythmic types of language are of sufficient importance to deserve some preliminary notice, just to draw attention to a subject which I shall ignore in this volume. I reproduce a Chinese design of Ma Ku who presents the "cup that cheers" to the pathfinder of reasonableness in the wilderness of wordy confusion. This cup, or rather the original cup-idea, is a seal-sign in the great learning of China. The cup is known as Wu, representing 5. It depicts the idea of focalizing thought in the gist of Fact by means of words in order to enable the mind to determine upon doing the right thing at the right time.

Giving the seal-character Wu the value of "5" approximates the Kabbal-

istic use of figures to convey ideas. The 5 stands for the temporary and lateral half-cycles which find at-one-making and to-order-setting in the **crossing-points** of the cycles or 10 values, as I will later explain. Therefore, is the Wu-cup shown as a double-cup united by a crossing-point. The crossing-point represents the meetings of seed-energy developed in the half-cyclings. In the division and propagation of elementary cell-life, the ancient Chinese distinguished daughter-cells from son-cells, which our modern biologists have not yet done and which must be done to fairly and fully explain the to-order-setting procedure in the Way of Life. See Illustr. 133 of "Wu," and Illustr. 120 of King Wan's son- and daughter-cells.

The Wu-cup as a seal-sign is intended to give thought its bearings and footings in the living consciousness of natural causation. These bearings and foot-

ties and stages of mentality by a certain step-procedure which specializes and organizes the consciousness of feelings characteristic of individual life.

This evolution is in daily evidence. Its causes are unknown only because the "law of evidence" is unknown to the alphabetically enlightened intellect, as is also the to-order-setting power of life in the way of evolution.

Out of mentality are the intellectual faculties evolved in the simple, evident and in easily knowable ways of language. These faculties give human life its thinking and speaking abilities. The

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ings collectively considered are known as the "**lapis fundamentalis.**" The underlying idea may be stated as follows: The countercyclings of energy through the radio-active focus weave the fitting tissues of life and death about character; that is, give character its fitting housing of matter.

The contents of the cup, if intoxicating, figures only symbolically as mind-making nourishment, or as mind-stirrer.

The Mythographers often described the intellect-making process by language effected as the rhetorical churn in the mental distillery. Rhetorical distillation produces the "luscious wine of reasonableness." The counter-tendencies of the fundamentally digested or fermented juices of life pass through the mental distillery; the fitter products rise to the "overflowing cup," and less fit pass away into "sewage"; "Keliphoth"—wordy trash. In the work of rhetorical distillation are engaged the lateral counterforces of the "hot and dry" coming into the distill on the one side and those of the "cold and wet" coming into it on the other side; and the "nephesh" animates the compound of lateral counterforces. The "nephesh" is the "breath of life's continuity. In the nephesh is the living character or soul according to sacred Writ. "Nephesh" comes translated as "Psyche" when reference is made to character energy in the periechon. The Hebrew words in Talmud and Targum fit the Chinese description.

The Wu-cup is a **lapis fundamentalis** in Chinese learning.

While the Wu-cup refers particularly to the "Time" of metabolings in the double-active character-energies of digest-center as going forth and back from body-building to mind-making, the "Cup that cheers," the so-called "Loving Cup," which is passed around, symbolizes the mental diffusion process which spreads reasonableness and good will among people so as to make them a harmoniously working family of digest-centers (Deipnon Koinonias). Ma Ku in the above illustration is the so-called **Cup-bearer** to the "**determining will.**" The cup in her hand symbolizes the mental development which results from discussions of native character-energy. All myths and sacred writings have adapted the gist of this Chinese pictogram. The mental process of Fact-knowing and Truth-telling by language controlled, is analogous to the physical process of evolving bodily and mental organs,—a process which is controlled by the to-order-setting power in the elementary process of nature.

Logic of Life and the Logic of Thought are or should be one orderly procedure along the line of the "Reason in all things," and the mind naturally follows this Reason if it thinks and speaks **after the manner of nature.** But who does so think and speak in this alphabetically enlightened age? No mind by analytic words enlightened can so think or speak, if it does not clearly know the **to-order-setting power** and its **principles of procedure** in the way of

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The executive power in nature, as in the human mind and in civilization, is one of focalized determination, and that determination is atomic; indivisibly double-active, but acting adjustively in death and adjudicatively and organically in life.

The ancient Hebrews have copied and modified the Chinese symbols of fundamental bearings; they represent their lapid fundamentalis as the stool of the "midwife"; language being the "midwife" at the birth of rational or vitally true ideas which make for Fact-knowing and Right-doing. This stool has been said to consist of two flat circular stones attached to the ends of one axis about which they presumably may counter-revolve. It was known as the "eben shetiyah."

Between the two figures on the face of the medal grows the fruitless tree of wordy knowledge, sending its thousand "pointers" into the cloudy sky of the speaking intellect. Notice the cloud-signs. The storks and the turtle (personified powers of life) are living their animal lives at the root of the "Tree," unmindful whence comes life or whither it goes. But civilized humanity lives, directed by thought and language and not by animal feelings alone. Thought and language must be attuned to the rhythms of feelings in order to direct the will into accord with the Logic of Life. Therefore is the dress of Ma Kua marked with signs of "diapheromenal" rhythms, preponderating in the ambitions of the feminine mind, while the dress of the pathfinder is decorated with the sign of "sympheromenal rhythms," preponderating in masculine ambition. This marking, however, is quite contrary to the nature of either character.

The woman appears as speaking like a man, and the man like a woman.

The dress of these two figures in the illustration is the symbol for the housing of character. Language puts its vestment on the intellectualized character which it evolves, as nature puts its material housings on all kinds of character-energy. But the housings of nature fit the character, while the verbal housings of the intellect or of its ideas do not usually fit. Human ambition works in ways opposite to the Way of Life, the **Tao**, and nothing but "unification" by the **gamikos** Logos can correct the error.

The pathfinder's head is surrounded by an aureole, which should symbolize the inner adaptation power, the **inner periechon,** formulated in the Kua, but it does not so appear; it appears as an abstract make-belief, without the radiating cross-lines.

The gist of inner adaptation power is in the crossing-point of biaxiality. Remember the Tai Kih. This biaxiality appears indicated at the bottom of the

evolution which leads from vitality through feelings into mentality and intellectuality. That power and its principles are consciously active in human life and they do not belong into the realm of the unknowable.

The Kabbalists claimed to have clearly known both the pre-creative tendencies to order in potential causation and the causes active in creation. They described the former as becoming active

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pathfinder's dress, by two stars. Hence his power to use rythmic language in kyriological, i. e., focalizing ways, is a mere matter of form, devoid of essence; hollow show! His dress as shown is, of course, not a product of natural causation, but it is symbolic of the artificial and illogical use of language.

Remember the **Gamikos Logos** for the possibility and ability of Fact-knowing depends on the unification, focalization or at-one-making of the all-comprehensive rhythmic inwardness of language with the special fragmentary terminological outwardness of it. The immediate consciousness of life's activity in the workshop of nature must be unified with the mediate consciousness of ideas in the workshop of thought by means of language. This unification has been well named: Gamikos Logos. Its workings egest the so-called Holy Ghost, which to my mind has found its most telling representation in a great sculpture from ancient North America. Illustr. 59. If the living and the thinking consciousness is not unified in the **gist of Fast,** then society, by reason of discursive opinions and the spread of ignorance and prejudices divides itself into antagonistic factions. Civilized man has two ways of speaking; one way fits the inwardness, the other way the outwardness of Fact. The Hebrew **Kol-pi-jah** is rhythmic, the **Abaddon** type is terminologically prosaic. The **Bath Kol is the** "unnamed desire": "That which they name not but desire,"—that which is active in life, but which is not brought out by the Abaddon type of rhetoric.

The story of Quasir in the northern Edda treats this same subject in a canonical way. It asserts that the kyriological use of rhythmic language is forever lost to humanity!

Northern myths in general seem to have been directly derived from the great learning of ancient China, that is, without influence of the Hebrew language. The Jew has been a subservient factor in Northern civilzation such as it has been, and still is.

The other side of this medal represents the rhythmic workings of death by the duodenary in and out cyclings of the moon in its course. It does not present any astronomical study, but a study of language symbolized by astronomical phaenomena. The moon is only used as a symbol of non-vital energy. These duodenary cyclings depict the workings of the **outer periechon** or housing-building adaptation-power with which philology will have to deal, if it aims to serve Fact-knowing. The ancient Hebrews personified the outer periechon on adaptation power by the name of "Kemu-EL," which is in fact an

in the three highest and presumably "all-integral" Sephiroth, representative of the En Soph; and the latter differentials they described by the seven lower Sephiroth, in which integrals and differentials of creative causation come mixed as compounds. The main idea is noteworthy; its verbal elaboration is not. It comes in Kabbalistic word-delusions, such as characterize all metaphysical thinking. It makes no difference to us whether the Kabbalists were visionaries or not. The main idea of Sephiroth is an altered plagarism from a now unrecognized but truthful formula of the Logic of Life and Death with which we will have to deal by some words. The Kabbalists were a queer but practical sort of thinkers, with gnostic ambitions, whose intellectual bent of mind we might

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abstraction of "Sama-EL," the lesser brother of the civilizing character-power **Eloah**, but which modern theophantasts define as the "devil."

The zodiacal animals are drawn into the moon circles. I have called these animal circles "Tchy." They represent the outwardness or outer bearings of intellectualized character—of character by language evolved.

A further and fuller explanation of this Chinese pictogram might prove interesting to those who hope for truthful enlightenment by pursuit of the present infantile stage of so-called psychology; for that study leads through the study of rhythms, which no modern thinker is liable to master. Breathing and digestion are rhythmic processes, and pulsation is an evidence of the rhythmic workings of life.

The duodenary cyclings of the moon about earth and sun are evidences of rhythmic workings in death. The rhythmic workings of natural causes may seem to be news to the modern mind, but they were forgotten knowledge in China more than 5,000 years ago. Our scientists think they know all about the causes of Tides; but they will have to do a great deal of thinking, before they will know anything about them.

The ocean tides are evidences of the rhythmic workings of natural causation in non-vital procedures. The duodenary cyclings of the moon about the earth and sun are evidences of the same rhythmic workings of the same causes in the same procedures.

The throbbings of ocean tides are evidences of the **changeful regularity** in rhythmic interaction and counteraction between the material and the substantial or electro-magnetic fields in the **periphora**. The Herakleitean word "periphora" refers to the "four countercycling fields" in solar-planetary space which "nourish" all character-centers in the processes of fiery and watery fermentation or of digestion. The four fields or elements of mobility and motivity in nature work temporarily or periodically about their own "not-whole, "self-dividing," half axes and they work in connection with the greater or "whole" axis of the system to which the individual factors belong. The "whole" or continuously working axis always intersects the "not-whole" or

study with profit for better or worse, especially when ethics and finance come under consideration. It is not necessary to put faith in the words of any school of learned thinkers. The more we discredit scholarly words the less they can deceive us. The words serve their purpose if they point to facts beyond their literal definitions. At the beginning of the study of the world-process, we will

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temporarily working axes at **changeful angles**, productive of periodic changes, as is easily shown, but entirely outside of the course of modern, scientific investigation. The accompanying illustration presents the Elements in the "Great Learning" of pre-Tartaric China, in which the "four fields" of the "periphora" (carrying about of nourishment) are shown as local wheels, working partly into the solar and partly within the universal "wheel," and as interacting and counteracting cycles, together with the four elementary Seal-characters: **Wu** (5) for half-cycle; **Cross** (10) for whole cycle; **Manna**-sign, for world-wide field of conscious energy, and the **T**-sign, for individual forms of existence.

Chinese Seal-signs for integrals in half-cycles and whole-cycles, and in universal and individual character-energies.

Remember Ma Ku, who would breath reasonableness with every word she utters, but, alas, she is ambitious! The fathers of our Christian cult have given us an ideal improvement of **Ma Ku** in **Santa Barbara** and less direetly in **Santa Paula**, but these ideal improvements belie reality.

I am not attempting to depict the world as a divine orchestron, but I want to draw the reader's attention to other ways of presenting Fact beside my own. The rhythmic workings in world vitality or world-wide death, or metamorphoses of both, reverberate in human life and find expression in the shoutings and cantings of psalms and hymns among our church-people, as they did and do among all the raees on earth, from time, not to be counted, to the present day.

The ancient Brahmins had their **Gandharvas** or rhythmic Truth-tellers who moulded the ethieal life of their race. They sought to imitate the rhythmic workings in the inwardness of earthy life and sidereal death by their instrumental music **(vadya)**, by their songs **(gana)**, and by their dances **(hridya)**.

The mythical Narada, one of the seven humanity-making Rishis, a mind-born son of Brahma and Saraswati (?) devoted a chapter in his book Narayana to the rhythmic workings of world-building character-powers, personified in the original six Ragas and their Raginis. His alleged work was later amplified in the Gayatri Pantra, a work whieh is considered second only to the Vedas. Narada is the reputed inventor of the "**Living Harp**" which automatically voiced the rhythmic workings of the vitality we inhale.

In the characterful stuff of life (thymos) live the active causes evidenced by feelings, passions, emotions, impulses, susceptibilities, affections, sympathies, dispositions, and other imperceptible workings of organically unfolded

not need the Hebrew phrases, the Greek will answer to point to now unknown physical facts, but not to draw ethical conclusions.

We will come to know the to-order-setting cause and its principles of procedure from sources quite foreign to Kabbalistic learning. The Kabbalists were plagiarizers who spoiled the ideas which they borrowed. They dealt in raggy hand-me-downs of

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vital powers which work rhythmically, and rhythmic sounds appeal to all these powers.

The Brahmins, like all seekers after knowledge of fact, founded their ideas of the **seven tri-unities** in world-building character-energies after seven of the eight Trigrams in the **Pa-Kua,** leaving out of consideration the eighth Tri-gram (Ch'ien), which is representative of the triple character of the all-controlling and presumably immutable field of conscious energy, called **panton kechorismenon** by Herakleitos. On this field we draw indirectly through our breathing organs.

The Brahmins' scheme of rhythms was undoubtedly an imitation of the older Chinese scheme.

The ancient Egyptians also had their musical schemes to represent the rhythmic working of character energies in life and death which they symbolized by signs of yearly and sidereal changes. They addressed themselves by hymns to Thoth, their word-working God, much like the ancient Jews who spoke of the "**seven voices**" of the word-building or humanity-making Gods. and who shouted in response to the choruses of alleged angels, by which they personified the character-powers in the vitality of the atmosphere, and which they symbolized by references to planetary movements.

When the intellectualized powers of the mind became flattened out by diversity of prosaic and analytic ideas, mankind lost its consciousness of the rhythmic workings in natural causation, although they retained a "shadow" of religious enthusiasm for the rhythmic workings of integral and differential causes of mental evolution. Even the sober Clemens of Alexandria goes into ecstatic spasms when speaking of music, heathenish and Christian.

The later and lesser Fact-knowers of the Jewish race, who tried to **square the rhetorical zodiac,** had still semi-rhythmic schemes to present the integrals and differentials in causation. They still spoke in living picture rhetoric. They substituted their ideas of **Shekinah** and **Sephiroth** for the Chinese Kua-formula and they explained their workings by star-symbols even in prosy rabbinical writings; as also did the Gnostics, who spoke of Aeons and who tried to bridge the chasm between the flattened intellectual working and the spherical workings of Fact, by verbal and mathematical tricks, in imitation to the rationally designed Chinese seal-characters or seal-signs.

The use of seal-characters can bridge the intellectual chasm which alphabetical language and syllogizing thought interpose between the intellectual and mental workings. Seal-signs can supply the necessary cardinals of language or tenets. They can give the speaking intellect a hold on the Logic of Life, and on the imperceptible working in the realm of human feelings and of living con-

knowledge, largely lost to their ages. They put spoiled wine into new bottles. A few of those bottles, however, are serviceable in drawing the attention of thought to Facts which science calls unknowable, and to Living Truth in which no mathematical thinker can tell.

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sciousness. They can serve to harmonize the natural flow of the prosopopoia rhetoric with the artificial fragmentary statements of terminological language.

In Egyptian myth the arrhenothelous fore-father of Spoken Thought divides himself into separate entities (Shu and Tefuit), father- and mother-capacities, and these capacities in the cyclic course of mental and intellectual evolution and involution reproduce the Boy-genius of Speaking Thought to-order-setting way, but with lessened ability—lessened powers of visage (mikroprosopos). **Downward leads the involution of mentality in the rising evolution of intellectuality! Verbal intellectuality is evolved at the expense of spoken mentality. Life speaks organically through mentality from the within of nature's workshop,** but later comes thought, self-sufficient thought, to speak **grammatically** from his own workshop, without considering the within of nature's workshop, according to Egyptian mysteries and kabbalistic learning. (See the Egyptian illustration to **Photogogia,** the bringing of mental inwardness into the Light of Living language—the origin, development and limitation of living consciousness, also see the Holy Ghost design from ancient North America.)

The earlier Kabbalists who had presumably followed the book "Jezirah," knew well that the illogical use of language does not serve Fact-knowing and Truth-telling. They called letters "Signs," "Pointers" (Ovothioth), not characters, as we do. They looked upon their Sephiroth as "wheel-works" (ouphanim) in the world-orchestron, they used ten of the God-names in Hebrew Writ to describe their Sephiroth; in further explanation they added character-names of Angel-groupings, and they symbolized all by the sun, planets and moon; all this to bring thought into the way of knowing Facts by following the rhythmic workings of integral and differential causation in the Logic of Life and Death. See Glossary for particulars.

Origines gives an alleged version of the kabbalistic names of the seven world-building and humanity-making sephiroth as follows: Michael the lion-headed, Suriel the bull-headed, Rathael, symb. the (therapeutic) serpent, Gabriel the eagle-headed, Thautabaoth, symb. bear, Erataoth, symb. (legislative) dog, Thartharoth or Ono-EL, symb. (devined) donkey which bears the burden of human error.

Donkey or **Ass** in prosopopaia rhetoric personifies a certain character-power which makes civilization go onward. The donkey personification is a shading of the figurative meaning of **Horse** which translated into our terminological system means "motive characteristics." Donkey or ass figures as the counterpart of the Chinese **Kirin,** not of our Biblical **Lamb of God;** therefore does the Ass (like the Goat of emperical and applied Science) come described

The mathematical thinker may talk learnedly and even impressively to the uninitiated mind, but he has no lapis fundamentalis upon which to build a system of living Truth. His work is ephemeral; it gives no regenerative powers to human character. The

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as a triune power of Father-Mother-Child in scripture: Hamor, Athon and Ayir; He-ass, She-ass and Ass-colt.

Animal life, according to ancient ideas of advancing generation, was considered as the stepping stone upon which human life had risen to its "Height" of character, therefore are human heads placed upon animal bodies to denote evolution, or vice versa, to denote involution.

It may be well to remember the fact, that the workshop of nature and the workshop of thought should be one process, by remembering the Scriptural words **Abarim** and **Debarim**, no matter how word-knowers have translated the meanings of these words. Physical word-pictures and geographical names are only used as means to the end of elucidating the mental and intellectual workings which rule social life. The scriptural type of rhetoric places the physical and the mental aspects of fact into reciprocal and interchangeable relationship. Therefore the words Abarim (certain mountains symbolic of certain accumulations of petrified prejudices) and Debarim (technical ways of thinking), are used to describe the opposite strainings or results of this and that one-sided way of thinking, which should be unified in order to avoid fatal errors of judgment and the consequent unsavory conduct. For this needed unification we need the "Logos dioikon,"—the to-order-setting character of language. Not having this Logos or type of language at our command, and not being able to use the powers of thought and language in accordance with principles of life and death, we must proceed analytically and consider fact as nature's activity may present itself in three aspects—the triune aspects: The inwardness of the workshop of nature with which the Theophantes aim to deal; the outwardness with which science deals; and the unification of these two lateral aspects. If we personify the first two aspects as those of the feminine and masculine bent of mind, then the third aspect appears as the Son-aspect, or as antiquity put it, as the "Boy-genius of Speaking Thought," or mediator, or Mithras or Mesites, middle column, logos alethenos, saviour, Son of God, etc. etc.

The needed unification of the lateral strainings of the intellect, Abarim and Debarim, has found a living presentation in the mural painting of "Abaris and Egeria," which see in Glossary.

Thinking solely about the active principles in the workshop of nature produces mountains of prejudicial ideas, Abarim (see illustrations of Gelon and Gelanor); and thinking about outward conditions only produces wordy laws of secondary value, Debarim. The theophantes would rule civilization by preaching the alleged "Word of God"; the emperics would rule by opinion-made laws. Adjustment of theological and scientific one-sidedness becomes a needed unification.

mathematician may take great pride in his ability to represent evidences of fact by figures; but are these figures, so true to evidences, equally true to Fact? For instance, are his figures of the specific gravity of planets true? Seemingly so, indeed; but actually they are mere visions, based indirectly on faulty conceptions of causation. The planets do not work on the principle on which works a ball tied to a string and whirled about by the hand that holds the

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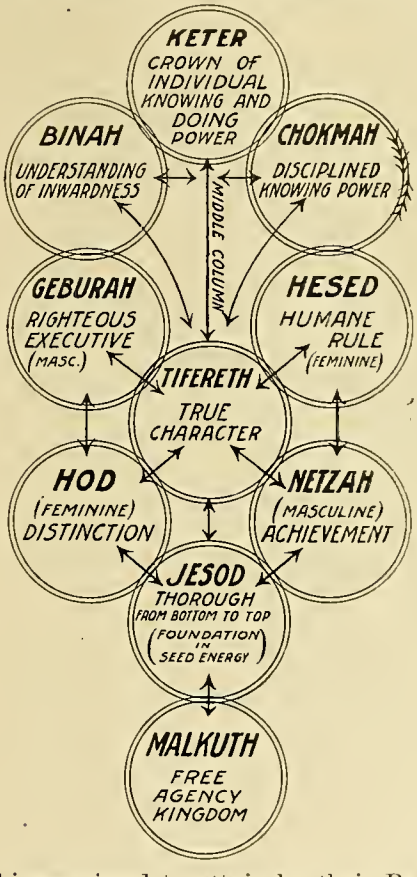
The accompanying illustration presents a scheme of the "Shekinah," or downward growing tree of human mentality; growing downward mentally, growing upward physically, as a unit in the bodily economy of man. The shekinah is a diagram designed to give thought its wordy bearings and footings in life's innate consciousness of natural causation. It is therefore a



The Shekinah is a scheme to present the workings of both vitality and intellectualized mentality. The circles are to be considered in countercycling and focalizing motion and in reciprocal interaction with each other. The Hebrew words inscribed in the circles are only "pointers," and not finally descriptive. Other words answer the same purpose. The English inscriptions are not an exact rendering of the Hebrew words. Any words which draw attention to the interaction of the various types of character-energy in the human mind will answer the purpose of mental analysis. The workings of the contemplative mind must not be fixed by definite terms.

The study of Hebrew mentality and the principles of its evolution are a very important endeavor at this time. If we understood the workings of Hebrew mentality, we might be able to see many of the active causes of the present progress in civilization, and its disturbances, as well as the possibilities of future betterment. The mind unfamiliar with the spirit of sacred writings, will not be able to understand this short synopsis of essential pointers, but the dimness of the subject will disappear by the later exposition of physical facts and their connection with the evolution of character-energy in mind-power, thought and language.

means to the same end which the ancient Chinese aimed to attain by their Pa Kua or formula of integral and differential causation. The Shekinah is an abstraction of the ancient Chinese diagrams of mental and physical glands in the human body,—glands or families of digest-centers which work like Easter lillies, with cyclic regularity, blooming of their own accord into the world-wide field of conscious energy, Shang Ti. In the Chinese scheme the three

string. The planets have an inner revolving power of their own. Their rotation is controlled by causes which work on principles quite different from that of any outwardly applied force. Speed and mass are not the controlling factors in that causation which produces planetary motion; they are only evidences of elementary forces which work in ways altogether unknown to science. The

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upper circles represented mentally working glands connected with breathing; and the two lower glands represented the glands of seed-energy and the end of the spinal column. In the scheme of the later Kabbalists, who follow the book Zohar, the circles are also drawn into a human figure, as in the Chinese and Brahmin schemes, but named by terms, which may mean anything which the mind may happen to think into them. The upper circle, for instance, is called **Kathar**, "crown." This word, to my mind, appears to have been used to depict the idea of conscious energy "dipped" from the "world's reservoir" of diffused vitality, concentrated by the breathing and digestion-process and enclosed into individual mind-power to crown human life and free agency. It has been suggested, however, that "Kathar" (Keter) is probably an adaptation of the **stephanos** of Parmenides. Chokmah is possibly a version of the Sophia of Philo, and Binah the "nous" of Aaxagoras, etc., etc. The lower word, **Malkuth**, is probably intended to mean dominion of the synagogue; its circle the Kabbalists have drawn into the feet of the human figure, not in the body proper, as did the Chinese. Therefore has man's government of the affairs on earth been described as the footstool of divinity. The pairs of circles placed opposit to each other on a level, forming up and down rows, are **dividers** of masculine and feminine energy. The left hand row is known as the left Pillar, Boaz; the right hand row is known as Yakin or Jachin. The up and down row of central circles is the **uniting "Middle column"** which the Kabbalists represent by the letter "vav," according to the book Zohar. The whole scheme is representative of the **"meetings and the partings"** of ever partially self-dividing character energies in **"life's eternal way."** The paired-off lateral circles **work** cross-wise from masculine preponderance into feminine preponderance, from feminine into masculine, through the "Middle Column."

The arrangement comes described as cyclic Wheelworks (ouphanim) in the household of God. The crown cycle (Kathar) is ascribed to the God-designation, A. H. J. H., called Ahajah, which comes translated as "changeful existence," but which probably refers to radio-active tendencies of vitality in the stuff of existence, as the one element of all things; and that idea is an imitation of the Chinese Yang Yin and TI.

Old China's cosmogony underlies all religious (back-tying) ideas of creation. Discursive thought needs something to hold it to Fact. In Chinese cosmogony tendencies to vitality, characteristic of the stuff of existence, become concentrated by their radio-activity (TI), which draws consciousness out of vitality and vests it into the first sub-conscious digest-center, **Tai-Kih**. This digest-center proceeds by double-active assimilation and elimination in breath-

mathematician does not know the difference between evidences of causation and causation as it is in itself. He represents the causes of evidence by theories which he calls laws. He draws false inferences from evidences and he bases his calculations on these inferences. The mathematician may be a relative truth-teller, but his conclusions misrepresent the facts whenever active causes enter into his calculations.

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ing and eating, and by partial self-division and propagation of itself to eventually divide the stuff of existence into a world-wide field of conscious energy, Shang-Ti, and into aggregations of devitalized matter. The subconscious digest-center, **Tai-Kih**, by ingestion and egestion of vitality and its consciousness, evolves actively conscious energy, making for organization of digest-centers and organic forms of life.

This is a partial summing up of the now forgotten Chinese scheme of World-evolution and involution. The details are biological and astronomical studies, all of which have been worked out in more or less truthful ways by little-known thinkers of antiquity.

The literary branch development of the Shekinah is very voluminous. No student of Fact can well dive into it all without losing himself in the delusions of word-knowers. The Shekinah is like the Kua, only a formula of the Logic of Life which thought may use to arrive at Fact-knowing. The modern Rabbi, is as far from knowing the spirit of old-time Writ and the Shekinah formula as the Han Lin scholar of modern China is removed from understanding the Yh-King or the workings of the Pa Kua formula. The world's great scholars are busy in devising new systems for putting dots over the "i" and reforming the characteristic spelling of old-time Fact-knowers. Don't look for Truth to modern learning.

The Kabbalists have written **En Soph** in the field above the Shekinah. En Soph is a new designation for the undefined God of the Jews, known as the "Ancient of Days" (Attik jomen or jomaya) to the early Babylonian Jews; and that God is virtually knowable, in part at least, as the living God-conciousness, which the Hebrew language, through the many Sibyls has introduced to the best known cults on earth, polytheisticaly or monotheistically.

En Soph is only another name for **Shang Ti**; and Shang Ti comes well defined in Chinese cosmogony as the to-order-setting power in the World-process. The Christian God is not any newly discovered World-power; but like En Soph, its designation is a new verbal dress for a once well-known Fact which is still in daily evidence before and within us. This Fact is now unknown only because the modern mind cannot think understandingly; it cannot connect the outwardness of special consciousness with the inwardness of self-consciousness and its connection with the character-energy in the not-self.

The Kabbalists assert that he who knows the meaning of the word En Soph, knows God. The assertion is quite true of all God-names which are rationally conceived, and thus conceived are many, if not most of them. The

INTEGRAL AND DIFFERENTIAL CAUSES ON THE LOGIC OF LIFE AND DEATH

In order to get at the forgotten Facts and at Living Truth or the **Reason** in all of nature's activity, we may do well to retrace the steps of intellectual evolution and mental involution to original knowing powers, to the internal motivity of life and its external adaptation power—the periechon. To this end we must study the integrals and differentials of causation, in their interaction and

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old Taoists said: Pu I T'ung Shen, i. e., by following the Yh King formula (Kua) one can divine the Way of the Gods. The Yh King or book of cyclic changes is presumably a practical application and elucidation of the Kua formula. See Illustr. 118.

The Gods are not mysterious workers. Language is such a worker. To define the word En Soph means either to give some Kabbalistis idea of it, or it means to elucidate the causes of life and of death in the world-process. I give an objective definition of En Soph in the glossary, and that definition is probably all the word deserves; it is nearer the truth than any idea of causation which any academic scholar has so far conceived.

To translate En Soph by the Greek word Apeiron, or aparantos, is substituting an abstract unreal idea for a word of unknown meaning. To say the word is an imitation of the ancient Persian idea of "Endless Time" or perpetual motion is also indefinite. It does not tell what the causes of creation or evolution are doing; it does not tell the why and how of the continuity procedure. If the world-process is a perpetuum mobile, no one will be able to guess what makes it the seemingly impossible thing which it is. Guessing at the workings of the God-consciousness or at the names which represent it in abstract ways is useless. The God-guessers will never cross the Jabbok, to come into step with the cyclic pace of Fact.

The mind works understandingly and the eye sees understandingly because it has the principles of life and death **within itself.** The intellect does not think or speak understandingly because it ignores these principles.

In the freakish fashions of learning, the **sephiroth** came near figuring as epoch-making conceptions in our own Christian cult; in fact, the ideas from which they were deduced did so figure in all the great cults of antiquity.

New names put new vestments on old ideas and make them appear as novelties and important inventions, characteristic of the alleged progress of the ages. According to the Jewish savants and according to fact, the leading kabbalistic ideas connect themselves with the entire Old Testament writ, even with its inception, and they did butt dangerously into the Christ-ideas and New Testament myths. A further look at them may direct attention to fundamental facts connected with the workshop of nature.

The **three** upper, "**all-integral**" Sephiroth symbolized the tendencies to creative evolution which the Chinese say permeates or the Jews say surmounts

counteraction, by some existing words through some old-time school of Fact-knowers.

Thinkers in ages long past have had more or less success in explaining the integral and differential causes of the metamorphoses of life and of death. They have not spoken of these causes from the phaenomenal view-point of modern learning, they have found ways and means of getting into the workshop of nature and of knowing and of explaining the chain of natural causation as it is in itself. They have done their work in even more comprehensive ways than I am attempting to do it; but they have not done it solely by means of an analytic and merely terminological language as is ours. They have done it by an indefinite living picture rhetoric and by so-called seal-signs which are not intelligible to the modern mind and which, if made intelligible, would still fail to satisfy the

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or envelops the stuff of existence. These sephiroth are distant deductions from the "**all-solid**" ch'ien trigrams of King Wan's Pa-Kua, or 8 trigram formula of the integral and differential causes active in every family of digest-centers, i. e., in all elementary cell life, out of the radio-active, atomic digest-center evolved.

These three sephiroth, however, are only **one** triple factor in the Kabbalistic ogdoads which formulate the cyclic character-energy in nature's inner activity, just as is the ch'ien trigram of three solid lines in the Pa-Kua; both represent the old-time Father-Mother-Child **tendencies** in nature's progressive and retrogressive order of evolution and involution.

The **seven** minor sephiroth in the ogdoads, or so-called heptas symbolize the active causes in creative evolution and involution in their countercyclings about the radio-active foci of world-building energy. (See illustr. 9, The countercycling cross from ancient America.) These sephiroth are imitations of the seven changeful trigrams in the **Pa-Kua**, which itself is evolved out of the Tai-Kih or original, biaxial digest-center.

In prosaic exegesis all these Chinese or Hebrew ideas of factors in changeful character-energy within and about digest-centers appear only vulgarly named and described by terms, i. e., not personified; yet all refer more or less rationally to causual features of Fact, and all constitute virtually what the Herakleiteans called the **Periechon**,—cyclings of world-building energy, or active respondents to world-wide tendencies of vitality. See definition of Periechon in Glossary.

The kabbalistic **Ensoph** is a new collective name substituted for the many old names of the old Hebrew God. It is inscribed in the field above the Shekinah in order to draw attention to the tendencies of vitality in the atmosphere. These tendencies, presumably, become mental capacities when ingested by human life; and they find representation of their fullest evolution in the three highest sephiroth. These denote one tri-unity of human knowing and

modern intellect, for it asks for some definite and conclusive truth. It cannot be satisfied by uncertain poetic word-pictures; and it should not be so satisfied. Faith in wordy representations of the causes of life is faith misplaced.

In order to successfully explain the imperceptible inwardness of nature's activity and its connection with perceptible outwardness, I will have to produce truly **objective** definitions and explanations of aphonic signs which fit the facts as they are in themselves. For that purpose I may have to add a glossary and explanation of old and uncommon seal-signs and words.

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doing powers, which enables man to follow the Logic of Life and Death in thought and act. The word Tri-unity refers to "**Meeting and Parting and Unifying** of countertendencies.

All the old-time Fact-knowers were monists, yet all looked up on the **one to-order-setting** power as embodying counter-tendencies, which partially divide themselves into actual capacities of masculinity and femininity in life, or positivity and negativity in death, to meet in vital regeneration or in non-vital physical re-formation of matter and to find unification in the resulting progeny or material product. (See Magnetism and Electricity in the Glossary.) Remember Shu and Tefunit and the Myths of Isis, Osiris and Horus.

The Ensoph is an imitation of logically formulated ideas; it is represented as a power of dual tendencies and of potentially triune capacities. It is what the Egyptian Mysteries described as arrhenothelous (arsenotheles), i. e., two-fold in tendencies and productive out of itself of double-sex capacities when acting in connection with material earthy character-energy. Therefore do Fact-knowers speak of a Sephira, Sophia Akamoth or Chokmah or Hokmah, which figuratively speaking means the **Mother of World-Knowledge**, or the divinely feminine power of comprehending the interaction of self and not-self, as distinct from the divinely masculine powers. It is argued that only half of the divine and human interaction in self and not-self is comprehensible. This half was called "Kosmos noetos," the intelligible (half of the) process of existence. The Ensoph by self-division produces out of itself the Achamoth or motherly power of comprehension which in turn imparts itself to man, or other mortal effects of the continuously working causes of life.

Speaking mystically after the manner of the Egyptians we might say the Ensoph has its "Double" within itself. Its actual fatherly character has its own counterpart in its potential motherly character; it is therefore double active and productive in the to-order-setting triune way, just as the Ch'ien trigram has its counterpart in the K'wan trigram in Fu-hsi's Pa-Kua which represents the to-order-setting Way of Life—the Tao. The subject as here stated may seem abstruse, but the microscopic observations of self-division in cell-life will make it intelligible.

All cults in antiquity drew on the now forgotten Fu-hsi school, and so drawing they described natural causation to much the same purpose. The

THE KNOWLEDGE OF THE WORLD-PROCESS IS NOT NEW

I have no new inventions of truths to offer. I aim only to resurrect forgotten knowledge of fact by gradually retracing the steps of intellectual evolution and corresponding involution of mind-powers to the recovery of old-time approved ways and means of Face-knowing and Truth-telling which have been lost to historic learning.

With regard to this lost matter-of-fact rhetoric, I do not pretend to go as far as the **"Living Logos dioikon,"** which is said to

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great but not forgotten learning of ancient China underlies all alleged Fact-knowledge of historic ages. The evidences of this fact are innumerable.

The first letter, "aleph," in the Hebrew alphabet denotes the alleged God TI of ancient China; it comes so depicted and defined. It represents the "whole" upright axis of TI, the axis of continuity in the world process, in its connection with the "not-whole" lateral axes of life's temporality. It represents the ancient Chinese idea of the whole and the not-whole lines of causation given in the Kua.

The Hebrew Amu, bearer of the "throwing stick," is only an imitation of the Chinese throwers of the Kua-sticks. The stick is the symbol of the continuity axis, whether it be named the rhabdos, the Kanon, the scepter, the caduceus, the Kerikyon, the devine post or pillar, obelisk or totem pole, etc., etc., in the civilizing work of language.

The Jew has been in China, the land of "Sinam," for ages, and he has no doubt familiarized himself with its great learning before it became entirely lost. From China comes the secret learning of the Kabbala which is not for the vulgar ear to know. The "Dyu'u" or Chinese Jew, comes figuratively described as T'iao Kiu Kia'u: Absorber of social tissue—de-nationalizer—or extractor of social sinew (sinews of war or of social life) whatever the words may have meant in the figurative language of Ancient China.

T'iao Kiu Kia'u probably represents the same idea as the Hebrew Baal Ma'akar or the Greek Makareus or the neurokopon of the septuagint, i. e., Hamstringer, or severer of social ties—severer of the powers of the understanding fom the powers of thinking; for thought when thus severed will lose hold of the unifying and organizing **Reason of Living** and go into lateral issues which destroy the humane ties in social life.

The Greek word "Chthon," the palawi "Kwan," the Hebrew "chevan" or "chon" are all formed after the Chinese K'wan. The testamentary word "chion" is only a rendering of the Chinese ch'ien; the people in the "**desert of abstract fancy**" will worship the star-ideas in their own intellectual firmament instead of the all-to-order-setting power in world-wide tendencies to vitality on which they draw for sustenance of life and mentality; the very

be the only means of the human mind to present vitally true pictures of natural causation.

My aim in this first effort goes only as far as to make known the physical facts which underlie the ethical requirements of civilized life. I aim to give modern thought an insight into the workshop of nature. I aim to give the true and full answer to the questions: Whence do we come? Whither do we go? I aim to tell the truth with regard to the origin of life and of solar systems; but I do not undertake to say why we are here. I shall confine myself to statements of fact. I will not attempt to judge the good or the evil, the right or the wrong in civilized life. I avoid entering

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manna idea is taken from ancient China. See illustration of Chinese Manna-sign in the text.

The gnostic syzygies or embodiments of lateral character in opposite sexes, are deductions of King Wan's son and daughter cells in the elementary family of digest-centers, which our biologists now know as the microscopic cell. The mythical King Wan himself is an imitator of Fu-hsi, the original master mind which formulated the workings of the digest-center (Tai-Kih) as those of the miscrocosm in which the world-wide causes of evolution are active. Fu-hsi makes his K'wan trigram (the gnostic Achamoth, or individual Mother-tendencies to propagation and organization of cell-life) a counterpart of his ch'ien trigram or universal bisexual, so-called father-tendencies to evolution. The purpose and gist of all these explanations is the once well known fact that **all types of life are evolved out of the character-energies, active in the digest-centers of cell-life.** This fact and no other is depicted in the Mosaic story of creation, but it is depicted in the now almost unintelligible prosopopaia system of rhetoric, the work of which is invariably misrepresented in the literal translations. No modern scholar has yet come to know how the personification-rhetoric can be transposed into terminological rhetoric. None even know that mythical personifications represent active factors of causation in life, mind and thought. Objective definitions and seal-signs must be made to enter between the two systems of rhetoric to make the transposition of the personification-method into the terminological methods possible.

If my explanations of the evolution and involution of life and solar systems are evidently true and convincing to the normal mind, then the Fu-hsi formula of **spherical cycles in integral and differential causation** stands proven; otherwise the formula or my conception and application of it is amiss. The proof is in the eating of the pudding.

Fu-hsi's formulas of integral and differential character-energies in the Logic of Life and Death will be found to fit not only the microscopic observations in evolution of cell-life, but also the sidereal process, and the workings of electrons, which modern thinkers begin to consider as elementary forces.

into theological and ethical aspects of fact. I avoid dealing with the day-dreams of historic thinkers or of metaphysicians.

In attempting to elucidate the inner workings of natural causation, I tread on ground to science forbidden, and I go beyond the limits where the literal use of language can serve the mind effectually, but I do go, and I do promise to take the reader beyond all surface-aspects of nature's work, beyond all phaenomena, into the inner workshop of nature, where no mysterious forces are at work,

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Fu-hsi's Pa Kua, or formula of integral and differential causation in vitality, mentality, and intellectuality. The eight trigrams must be considered in **changeful regularity** of interaction and counteraction, like the "wheelworks" in the Kabbalistic Shekinah.

The upper trigram of **solid** lines is called Ch'ien; it represents Shang-Ti, the field of conscious energy in world-wide tendencies to vitality, which gives fundamental character to all existing things,—not special character directly.

The lower trigram of three broken or **not-whole** lines is called K'wan; it represents one-half of the work of TI, the feminine half, which gives special character and form, or housing, to all existing things.

All ponderable solar-planetary matter works from the K'wan sides or character energy; all imponderable conscious or subconscious energy works from the Ch'ien sides of character energy into the foci of special forms of life and death.

The diagram must be conceived as a "**Sphaeros**" (not as mere sphere or globe), in which countercycling energies of little embodiment continuously **meet** and **part** with countercycling matter of little energy, but always in **changeful regularity**. This regularity is formulated in the trigrams.

The **sygygies** should be remembered in some way; they represent the **double crossings** in the way of evolution and involution; the Sphinx of China and Egypt; they come symbolized as lenmiscatic coilings in ancient America and India, see Illustr. 126; they were known as the "Secret of Sex." The Syzygies depict the limits contrary straining in the way of life's evolution. Of these limits neither modern science nor theology has taken any notice, yet are they essentials in Fact-knowing, Truth-telling and Right-doing.

Transcending the limits of life's order in fundamental nature by lateral endeavors undermines fitness of survival and kills both the endeavors and their victims. Thought-made laws, religious enthusiasm and even humane sympathies have their limits of usefulness. Do not get Thought-drunk or God-drunk or word-drunk in any way. Facts not fancies make life a holiday. Truth suffices.

where all observable evidences of nature's activity—all phaenomena have their knowable connection with the chain of eternal causation, where all causation works in plain sight, its knowability depending only on the rightful use of all mental powers and on suitable definition of words as means to the end of evolving the naturally implicit consciousness of fact into explicit knowledge of natural causation.

Valentinus, the gnostic, divided the seekers after "Living Truth" into three classes: The "Hyle" knowers, who came by their knowledge by eating dead matter; the "pneuma" knowers, who obtained their knowledge by breathing vitality; and the "physis" knowers, who floundered between the two sources of Light and worked up shadowy ideas without knowledge of Fact, not knowing how they came by their alleged knowledge.

Valentinus imitated the Septuagint and labored with new testament-ideas, but he failed at times to apply the gnostic **syzyges**, i. e., the pairing of the masculine and feminine branchings of unfolding character-energies, which King Wan had laid down as fundamental principles in his Kua-formula, and on which all other myth-writers had drawn directly or indirectly. Valentinus thought he knew ten integrals and twelve differentials. He made Life (zoe) and Language (logos) evolve the character-energies in the civilized mind. He names as alleged cardinals: First, **Bethius**, the understanding of fundamental principles or undercurrents in life's cyclic ways; then **Ageratus**, the eternity of automatic causation; **Henosis**, the meeting and the parting of self-dividing branchings in life's way; **Autophyes**, self-discipline to develope true character-standard; **Hedone**, the joy of living; **Akinetus**, the regularity of changeful causation; **Synkrasis**, the vital adjustment in the mixture of elementary counter-forces; **Monogenes**, the one-born re-unifier of lateral partings in the way of life; **Markaria**, the unqualified healthfulness, which carries life into the spheres where world-wandering angels gyrate.* The interpretations of his words are my own conception of their meanings. No guarantee goes with them, that my interpretations truly voice the intentions which the author put in his words.

The intellectual atmosphere in civilization, the so-called Spirit of the Times, Valentinus evolves out of **anthropos**, individuality in man and **Ecclesia**, community-spirit in social organization. His **Parakletos** is the "**periechon**" of human life, intellectualized after the manner of fundamental principles. **Pistis**, faith in the Paraklete's virtues, required to unite men in social effort. **Patricicus**, the capacities of the masculine intellect and **Elpis**, its hopes that Right must prevail in the end; **Metricus**, capacities of the feminine intellect, and **Agape**, its devotion to sympathetic affections; **Aeinous** and **Synesis**, penetrative and comprehensive intellectuality; **Ecclesiasticus**, the spirit of social organization, holding to the organizing principles of life in nature; **Marcorites**, sustainer of social health; **Theletus**, free-agency determining-power, making for Right-doing; **Sophia**, the wisdom in educational endeavors.

In the use of words and in the giving of required definitions, I fall short of the achievements of men who wrote in former ages. But that fact will not prevent me from making the world-process known more thoroughly than it has been known for 5,000 years.

OBJECTIVE AND SUBJECTIVE DEFINITIONS

Objective definitions lead thought into a direction opposite to that toward which the subjective definitions given in our dictionaries direct the attention. Our dictionary definitions can serve effectively only in describing the outwardness of fact; they cannot successfully point toward the now unknown inwardness of natural causation.

Basilides, the remodeler of hand-me-downs, who apes Valentinus, begins his scheme of enumerating "cardinals" required to Fact-knowing, Truth-telling and Right-doing by **Protogonos,** first-born of living language; **Kadmon,** a sort of pre-paradisal Adam in whom the genius of language finds physical embodiment to grow by evolution of mental organs into comprehensive capacities. From **Protogonos** he goes to **nous,** mentality intellectualized; from **nous** to **logos,** the intellectual truth-telling powers to express in rhythmic or mythical ways the characterful workings of the causes of life; from **logos** to **phronesis,** intellectual comprehensiveness; from **phrenosis** to **sophia,** the fully evolved wisdom of to-order-setting by ways and means of language; from **sophia** to **dynamics,** practical ability to establish a **Rule of Right** in civilization; and from **dynamics** to **dicaiosyne,** the blessed Holiness or healthfulness in the well regulated individual and national life. I refer to all this wordy knowledge only for the purpose of illustrating the efforts of intellectual tinkers to find some way of leading the attention of thought by means of words toward the inward workings of mentality and life. Words cannot well do the work which seal-signs will do, if well chosen.

There is, of course, much profound Truth beneath the words quoted, but that Truth is not an open book to the present stage of mental development. Going beyond our present way of thinking, we must go slowly and carefully, lest we fall to use serviceable means in unsavory ways, as did the mythical Adam. We must not make our senses disagree with our reasoning powers.

The seal-signs **(sphragistes tes zoes)** may enable the thinking mind to unify the aphonic and phonetic branchings of characterful language and to bring word-knowledge into harmony with living integral Fact-knowledge.

The Syrian Ophites, a brotherhood of Jewish worshippers of the word-wise intellect, imitating Valentinus, personified the rhythmically working characters in integral causation by such names as: Jaldabaoth, Jao, Adonai, Eloi, Orai, Astaphai; or Jao, Zabaoth, Adonai, Eloi, Oraeus, Astaphaeus, all of which were given representative star-signs to denote their rhythmic workings. I cite these words of alleged Fact-knowers as standing somewhat in contrast to

Objective definitions, such as I shall introduce are not by any means vitally true definitions; they are only preliminary means which the mind must employ in its first advance toward vitally true conceptions of facts, concerning the workings of life and death as they are in themselves. This last assertion reminds me of an old, old story concerning the mythical Dionysos, whom the now abandoned god, Zeus, was accredited with having sent to earth for the purpose of bringing the word-deluded, sense-worshipping and vitality-ignoring humanity back into the way of reasonableness.

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the prosey words of the world-famous Idea-powers, whose works modern learning adores.

All the efforts of alleged Fact-knowers make for **bridge-building** to unify the genius in the workshop of thought with the genii or character-energies active in the workshop of nature. Some ambitious Fact-knowers or presumptive Truth-tellers organized themselves as **Gephyraioi**, builders of "verbal bridges." Verbal bridge-building has been the one great endeavor of cult-workers the world over. Many are the names of the bridge-building-efforts. All these efforts have fallen flat because language fastens the attention into the words of some speaking Ego, and thereby withdraws it from the causation in the world-wide not-self.

Whatever there may be of merit, if any, in the penned thoughts of alleged Fact-knowers, it does not make known the causes which produce life and solar systems. No thinker of history lays a true and explicit physical foundation for life's requirements of knowing and doing. The very causes of life's origin and of that of solar systems must be made clearly known, before we can learn to speak rationally of ethics. The very Reason of continuity and temporality in all coming and going, in all of nature's metamorphoses must be elucidated; the whys and hows must be made known before the mind is fully equipped to deal rationally with ethical, social and financial problems.

The origin of Life and of solar systems I mean to make known as it was known to prehistoric China, and as it is in Fact.

All the wordy wisdom of historic ages is only evidence of the vanity of word-workers. The great thoughts that moulded humanity and civilization originated in ancient China. China was the source of all integral Fact-knowing, which, spreading over the earth, deteriorated as did the character of language. Our best thinkers in Antiquity were only imitators of forgotten Chinese knowledge. Even Herakleitos, who claimed to have been an autodidact, was only an imitator, and so was St. John, the evangelist, the standard-raiser of the Christian cult. In the biaxial Tai-kih the symbol of the biaxial digest-center, and in its unfolding in the Pa-kua is to be found the queue to integral Fact-knowing.

Cell-life, as a family of digest-centers, breathing and eating, is a world in miniature.

At his first advent, Dionysos had to amble rhetorically or limp spondaically, either because he lacked the understanding or ability which is required to proceed rhetorically in conformance to the vitally true rhythms of timely causation, or because the world could not have followed him, if he had so proceeded. This same predicament confronts all minds, by letter-learning enlightened, when the Truth about causation is to be told.

In order to do vitally true work the thinking mind must not only exercise its rational will-power, but it must command vitally true means. Modern language does not furnish these means. Therefore the talk of some Greek scholars about the "logos."

The **Kabbala Ijunith**, we may do well to consider as an easy stepping stone to Chinese cosmogony, which is more difficult to comprehend than Jewish learning. But we need only the fundamental and leading ideas of this part of the Kabbala. **Ensoph** takes the place of the Chinese **Shang Ti**, as the all-comprehensive field of conscious energy cycling about the world-axis. The emanations of the Ensoph, when ingested by individual life become the active causes of creation and evolution of individual character-energy, active in four-fold, to-order-setting ways and in connection with the original field. The individual character-energy is of bisexual, arsenothelous tendencies, but it divides itself in the way of evolution into the powers of feminine comprehension: **Chokmah** or **Hokmah**, and into corresponding masculine powers: **Binah**. Only the harmonious interaction of these two comprehending powers can evolve fitness of survival, righteousness and ability to act out the **Torah** by Fact-knowing, Truth-telling and Right-doing. Individual life can survive and multiply only by ingesting or breathing vitality from the universal source near it: Ru'ah. Breath, nepesh, from the Ru'ah or field of vitality in the near atmosphere, is the active cause which gives character or so-called soul to individual life. This breathing effects the axial adjustment of individual cycles of life to the collective and universal cycles; it adjusts the local and actually living self or "periechon" to the universal "periechon," or potentially living not-self. Ingestions and egestions of local life and universal vitality are the interactive and counteractive procedures which eventually evolve the God-consciousness in mankind.

The universal to-order-setting and life-evolving power can only do world-building by acting through individual character-energy and its knowing and doing-powers. The world is not merely God-made, but also Creature-made. Cause and effect are **one** in the act. The knowing power of self is **one** with the knowable cause of evolution. The knowability arises in the God-consciousness of man, and it is not so limited, that it cannot make man a free-agent in the way of life's evolution. The gift of language has so extended this consciousness in man, and in man only, in no other creature.

Who can make language fit the facts of living and dying? Who can depict the facts of existence in vitally true words?

The development of ability to represent natural causation by means of language leads through the study of character-energy active in digestion and fermentation of all kinds and into the double knowledge of Self and of the Not-self. Knowing the character-energies in Self and Not-self is knowing the world-process. Character-energy in either life or death is invisible and inaccessible to surface investigation. It cannot be seen by the means of scientific observation; its working cannot be explained by means of terminalogical rhetoric; nor in the ways of theological learning and by its picture rhetoric. The workings of character-energy appear as unfathomable mysteries to all kinds of philosophical speculations. Therefore is my explanation neither scientific nor theological, nor philosophical, and it should not be read studiously as works of the learned sorts must be read.

The God-consciousness in man connects itself, like En Soph with the lower Sephiroth or like Eloah with the Elohim, through the Ru-ah (The Kua of the Chinese, the local periechon of the Herakleiteans) with the universal world-cycling Ensoph. The God-consciousness, like any other character-energy, is never single active, but always double-active, adjusting natural contrarities in the cycling ups and downs of the to-order-setting way in the work of world-building. The **Reason of Living** in living nature, as in individual man, is active in four Realms (Azila, Beria, Jezirah, Asiya), because of its four-fold polarity in assimilating that which sustains the order of Life and eliminating that which disturbs it. Consciousness of causation is innate in man's mentality. But language, not used in characterful ways, makes man ignore his own living God-consciousness and his own self-consciousness of the **Reason of Living** and causes his intellectual powers to exert themselves, but too often, only in the lowest artificial Realm of knowing and doing — the **Asiyatic** Realm of hollow word-knowledge, as the Kabbalist describes it,— "Kenoma," as the Gnostics called it. The normally working mind does not stray into the realm of tangential or visionary word-knowledge. It deals with the contrarities in nature's elementary forces as do the active causes of life's creation and evolution in an adjusting and to-order-setting way. It acts like a scale in weighing facts, evidences and contrary or contradictory ideas. (See illustr. of Chinese scale of self-consciousness in text.) It does not employ unreasonable force as means to life's end. It acts as a harmonizing power, as do father and mother in a family of children. Society and national life is only an enlarged family circle and should be ruled as such. The God-consciousness to the Kabbalist is the foundation of parental consciousness. All national life is one extended family to his ideas. He holds that education

WORDS OBJECTIVELY DEFINED ARE ONLY HINTS AT FACTS

I do not present a study of definite words, but of hints at Fact. Not the words, but the Facts hinted at by words and pictograms, are to be studied; and these Facts should be studied by discussions and not by studious reading. If any part of this volume is to be studiously read, it is the glossary.

The elucidation of the world-process is a most uncommon presentation of a most uncommon subject. It calls for resurrection of dormant states of consciousness. It addresses itself to every faculty in either brain or mind-power, and not only to one-half of

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should evolve intellectual judging powers true to life and its connection with world-vitality, through the God-consciousness . The human mind should weigh contrarities and contrasts in fact, without allowing itself to be misled by wordy contradictions or other unduly one-sided presentations of evidences. The intellectualized judging power should act as a judge of Purpose and Reason in action and not merely as a judge of apparent conditions. But the Kabbalist does so hold only in as far as he does not deviate from the canonical writ of his race. The original Hebrew God-consciousness is fundamentally a patriarchal, civilizing, family-and-nation-organizing power. Eloah and Sama-EL, as originally conceived, were brothers and co-workers, the one working for Character-elevation, the other to give character its fitting housings. Sama-EL put the divine character and will into human flesh and intellect; but language, descending into letter learning (Lillith and Iggerith), came to enter as dividing powers between the Brothers, and now the religious Hebrew, like the Christian, is inclined to judge Good and Evil by fixed opinions and contradictory terms, grown on the wordy tree of reflective thought. The radio-active effulgence of conscious energy is no longer active in any religiously-trained mind. All imperfectly disciplined minds go into extremes of thought and act. They make the intellectualized will act out contradictions by deadly force. The organizing Reason prevails in no alphabetically enlightened mind.

The Contrarities of Nature's double-activity are misrepresented by the contradictory aspects of single-active thought.

Contradictory ideas of cause and consequence control the deadly struggles in civilization. All God-ideas are of contradictory notions born, excepting Chinese Shang Ti and perhaps the Hebrew "Ancient of Days" (Attik Jomin, the elic world-regulating energy) or the original conception of J. H. V. H. (the all-ruling principles of life and death). Few indeed are the thinkers who can comprehend the cause of Unity and continuity in a world of contrasts and contrarities. The world is a "sphairos" in which harmonious interaction of contrary forces prevails, and in which disturbing counteraction is subservient. The harmonizing and to-order-setting character energy is the "Adonai" and the words Good and Evil do not fit that character or its procedure. To say

these powers, as do all modern studies of phaenomena. The study of character-energy is not merely an investigation of phaenomena, but it is a study of the imperceptible and now altogether ignored causes, which produce all phaenomena, and of the equally ignored powers of mind, which make these causes knowable; therefore does this effort address itself to unused faculties of mind.

The reader need not stop to make every sentence clear to himself, at first perusal. He can pass over difficult obscure or uncommon statements; he need only pick out what appears worthy of

"God is good is a relatively true, equivocative judgment. No two minds can ever entertain the same ideas of Good and Evil in the changeful ways and conditions of life. Ideas have not built the world. Thought has never made a hair grow on anybody's head. Vital and conscious character-energy does the work of world-building and world-regulating; and it works continuously in the ways of life and of death. The world is as it should be; in itself, it is neither Good nor Evil; in the opinionated ignorance and prejudicial judgment of man it is anything and everything of which self-sufficient thought may happen to think. The word-wise, illogical mind judges the workings in its own workshop and never those in the workshop of nature.

Eloah and Sama-EL, the character-evolver and the builder of fitting housing, by means of which character may do its work, are one and the same cause of creation, which is changefully active in the workshop of nature; but in the workshop of speaking thought all is otherwise, for thought is self-sufficient and illogical. It goes beyond the counter-procedures in the workshop of nature; it evolves contradictory forces of its own, and it makes civilization a hell on earth.

The doctrines of the Magi, which refer to the World-process, come rather clearly stated: The elementary world is controlled by principles of Life and Death. Heaven and earth are **one** in interaction and counteraction. All things are double active; by sympathetic impulse impelled, they work for organic union, by deadly forces impelled, they make for non-organic division. The visible forms are only the evidences of the invisible powers that make for union of organic and anorganic order. The elements of death carry together and apart. The elements of life enter into the counteractivity of the elements of death to build up conscious character in continuous and temporary ways. That which into living character may enter must from living character emerge. (There is no making anything out of nothing.) The endless variety in living nature is regulated by the **one** element of conscious vitality.

The will is the dominant expression of character in all mental life, and it shows itself the fittest, the less dependent it is on bodily housings and on dividing thought, etc., etc. All the apparent truth in old-time quotations notwithstanding, we must make our way toward fuller and more comprehensive Fact-knowing by means of our own language and in our own modern manner of thinking. The old landmarks can serve us only as fingerposts.

notice to him. These pickings he should discuss, little by little, for only by discussion can he make the facts clear to himself in vitally true ways, so as to profit by the study of the world-process.

This is not a study of ready-made knowledge, to be memorized; it is a study of natural causes and consequences, presented in a form which may bring the thoughtful mind into the way of solving all problems of life, of mind, and of civilization.

When I explain the origin of life or the interaction of matter and mind, or the causes of tides and of earthquakes, I avoid the

DUAL ASPECTS OF THE ONENESS OF FACT

Eloah and Sama-EL, Kadmi-EL and Beli-EL, like Ormuzd and Ariman (Ahura Mazda and Angra Mainyu) are only imitations of the Chinese Li Ki in its original and widest sense, which holds that character and conduct are **one**; character and its embodiment are one in Fact. The characterful Reason of Living must rule the bodily system, otherwise the order of life's continuity is disturbed by fatal aggressions of outward sense and self-sufficient, egotistic thought; everything that lives can act out what the world calls "Good and Evil." Character, in its housings woven, is not a continuous and changeless to-order-setting power, but it goes in part into the disorders of death. Order and disorder, life and death, good and evil are an inseparable compound. Only discipline in accordance with active "**Principles of Life and Death**" can bring human character into the way of Light and Right and into fitness to sustain the order of life by the thinking Will-power. Man may have been made after the image of the God, but the godly character has its own "Double" within itself; and so has man; he can "work" as creator or destroyer, as God or as Devil; he can sustain the order of life or disturb it, and he does the one thing or the other as the educational, legislative and financial influences cause him to do.

Damia builds by adhering to the Reason of Living, and Deidamia destroys by falling in the way of sense. Deidamia (the feminine powers of comprehension), by Star-ideas discursively enlightened and controlled, becomes the enemy of her masculine counterpart and of home and nation.

Kadmi-EL, the Truth-teller, and Beli-EL the liar, are opposite poles in the same cyclings of the same active character-power, now working for development of character, now to give character its formed housing; but finally to break through the confines of orderly life into delusive and destructive fancies. The thinking mind, life the mythical Mahalabel begins by singing the praises to God and the Reason of Living, but eventually it falls from grace and metamorphoses into Jared, its descendant "descendus"—Labradeus—Labragores—God-ideas or goody-goody talk, pretentious but hollow. Good and evil tendencies live in the same mind and in the same God-consciousness, but only as contrary poles of cyclic to-order-setting activity, not as incorrigible contradictions, as they do in the speaking intellect. The K'wan trigram in the Pa-Kua symbolizes the possible "Door of Death" in the cyclic course of development through which enters life and by which the speaking intellect makes its

use of language which the reader can memorize and repeat. I aim to induce him to read with discernment and to study the facts rather by words of his own than by dependence on my words. I aim to make him use his own words, if he should attempt to tell what he has come to know of the world-process.

Every mind should do its own thinking by words that suit its own mental-workings. No mind should place more credence in the alleged truth of wordy ideas emanating from other minds, than in its own living and knowing powers. I write to make the reader do his own thinking along the principles to which I point, by

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exit from the confines of life's cyclic order into the world of deadly visions. The living God-consciousness metamorphoses into death-dealing God-ideas and ideas of the "Good" which kill humane character and "hamstring" the reasoning powers of the living mind. Language degenerates, when it loses its rhythmic character; it dies, when it loses its power to appeal to human feelings, and with it dies the race which speaks it. By the sword of tongue or war no race can live long. The Hebrew language has lost its rhythmic character, its living modulations and intonations, and our modern languages are fast losing their soul-stirring character under scientific influence; they are even now coldly reflective. No modern mind could write an epic like the Edda and Niebelungen-lied, or even understand the influences of such epics on social life; and yet the Edda is only an epic, i. e., not an altogether canonical work, for it is largely prosey—reflectively so. The jingle of rhyme, with us, has taken the place of living rhythm. Language has intellectualized human character, and it is still working to make it humane or inhuman.

THE HEBREW'S GOD-CONSCIOUSNESS HAS A COSMOLOGICAL FOOTING

The Hebrew God differs form all other Gods in as much as it comes originally represented as a tangible, life-giving and sustaining power in nature, which adjusts contrasts by acting as a fundamental cause of evolution and which is never misrepresented by ideal contradictions. The Hebrew God is not conceived as an abstraction or absentee God, but as vital energy, entering all life as **nephesh** by inhalation of **Ru ah.** Breathing vitality from the atmosphere, primarily connects God with man and evolves human knowing and doing-power in the natural way of evolving the powers of language and through it Free agency powers or powers to deviate from the order of life in the way of thinking, speaking and determining upon righteous or other conduct. The Hebrew God, as originally conceived, is the world-pervading tendency to vitality which entering individual life as "breath" (nephesh) evolves world-building capacities and eventually (as Kol-pi-jah, the voice from the fountain of vitality) it also evolves intellectual powers in man. These powers fully and fairly evolved, man comes to act as a Free-agent of world-vitality and he stands enabled to organize family and social ties in accordance

words which suit my mental workings. My words may not suit his mental workings; if they do not, it does not matter. The words are not important. The principles pointed to by the words used are all important.

I have made but few statements of fact on positive words, which can be and should be remembered in order to give the think-

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with the fundamental organizing principles in nature. In the Hebrew mind the Fatherhood of God and the brotherhood of man stand connected as potential causes, merged into actual capacities of Free agency power to do right or wrong in family and social life and to sustain health, welbeing and the temporality of life's order or to disturb it. In Hebrew writ J. H. V. H. or Y. H. V. H., as the English Hebrews now write the tetragrammaton, does not mean Jehovah; it means fundamental principles of life and death. Jehovah is not the Hebrew God; it is an unmeaning name, which rank ignorance has substituted for the original designation of "principles" or cause of evolution. The Hebrew writ explains the cause of evolution in nature, mentality, intellectuality, family and social organization; it explains this cause in a now misunderstood type of rhetoric.

I mention these facts only in preliminary foot-notes because I think it important to show the differences between the workings of the Hebrew mentality and instinct and our own. The reader who is not pleased with these foot-notes need not read them. In the text I make the cause of evolution known without any reference to Hebrew ideas. The importance of presenting Hebrew ideas in these preliminary foot-notes rests on the fact that the Hebrew's superior business intelligence and understanding of facts, in general, is rapidly making a world-power of him in our industrial type of civilization. It will make such a power of him whether he proceed agressively in diplomacy or war policy or not. The present aggressive policy is a melting pot policy in which a few Hebrew co-operate with many non-Hebrews. I am not commenting on the merits or demerits of this policy; but I am trying to give our superficially thinking race an insight into Facts—physical Facts, for the present.

THE HEBREW'S DREAM OF WORLD-CONTROL

We must remember that the Hebrew primarily bases his hopes for world-control upon the promises of his superior God-consciousness and upon his own consciousness of practical understanding of life's requirements, — and not alone upon his ability to control the financial system. Answering this assertion by "pooh, pooh" is not any rational argument. We must note facts as they are; we must represent them fully and fairly without prejudice, pro or con, if we want to arrive at a thorough understanding of the powers which at present mold and mar civilization. After the ending of this present and coming Armageddon, the Hebrew race will be the one great power behind the thrones and governments of all modern civilizations. The Hebrew will, no

ing mind a firm hold on principles of procedure in the world-process and on the chain of natural causation in general.

I offer these pages as an exercise to make the mind self-supporting and self-relying, and to free it from blind reliance on alleged authoritative opinions or on the fixed conclusions of any kind of learning.

While the facts regarding the origin of life and solar planetary systems are truly stated and while these statements may be regarded as all important, I hold the development of natural dis-

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doubt, try and give the various countries on earth, the best possible forms of government. Civilization, then, will have the best of practical understanding and the best of business intelligence to guide its fortunes, to mould its fate.

Will the Hebrew be able to make a final success of civilization? Will he not become power-drunk, as does everybody who attains absolute ruling powers? The Hebrew mentality is given to great success and to great failure. The race has risen higher and fallen lower than other races. When the race goes down, it develops reasoning powers, as it has done in these last 1,000 years; for, in fact, the Rabbis did the superior thinking during the Dark Ages. What the race will do for civilization, when it rises into power, remains to be seen.

All powers, which have ruled humanity in coldly reflective ways, when rising into undisputable success, have become dangers to established order and public welfare. These dangers have always terminated in failure.

The Hebrews in their parabolical liturgy have a famous parallelistic Easter-song, versions of which have found their way into many lands and languages. This song illustrates the counter-procedure of fated character-energy in civilized life. I refer to the "Had Gadya": "The Kidling, the Kidling which my father **bought** for me." The Kidling, in Hierarchial language, represents the educational influence upon young life, upon the rejuvenating powers of the race, as does the academic goat **Amalthea** on the public mind. This much said, the original meaning of this little but remarkable Easter song should be evident.

The heathenish source from which the story of the biblical Job is derived may throw some light on the possibility of establishing any form of government which will prove lastingly successful. According to that heathenish story, the Gods in council assembled discussed the possibility referred to. They differed in their divine judgment, mainly on the ground that it is next to impossible to establish true systems of education, legislation and finance in civilization, so as to evolve and sustain true Free-agency character in the masses of the people, and that therefore the masses fail to follow true leadership. They rebel against their own welfare and even against the Gods. The heathenish Gods ended their discussion by agreeing to put this problematical matter to a practical test; which was done. The result proved the negating Gods in error; according to that mythical story, but history has not recorded any such felicitous results on earth; not even in the reign of the Biblical Solomon.

cerning and reasoning powers in our race and particularly in our scholars to be of paramount importance. So holding, I present the subject in way which serve that purpose, mainly. These ways will not place me in as favorable a light before the reading public as might the more familiar ways of science and theology; but I am not seeking self advantage. I am writing because I know the facts, and because I hold that all the world should know them. Although pursuing the subject in unaccustomed ways by imperfect phraseology, even unfavorable to myself, my statements in the main are

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The systems of school, church and finance, personified in the three friends of the mythical Job (Bildad, Zophar and Eliphas), in the absence of true Free-agency character, personified in Eli-hu, seem to have proven themselves the reverse of capable to sustain righteous government, personified in Job. No government can proceed happily, if it does not work in truly reciprocal relationship (in a Deipnon Koinonias) with the governed. Our theologians may say, I misinterpret the story of Job; but I say, the modern theologian does not understand anagogies, and I have reasons, sufficient to myself, which lead me to believe that I do understand anogogies, approximately. A "Melting pot," which is not a **Deipnon Koinonias,** established on principles of life and death, can never be a success. When some constituent factors of society welter wastefully in wealth, while other essential constituents starve, there can be no harmonious interaction; there must come more or less successful rebellions and eventual disintegration. Undue wealth and undue poverty destroy Free-agency character. Merit and demerit in individuals and factions, of course, must be taken into account as necessary contracts. Society must be provided with sewage provisions for character-failings; **but fairness must prevail,** if social organization is to hold together. Without truly evolved character in all social constituents, society cannot enjoy internal peace. Nor can there be any peace, if leadership rises above the character level and ability of the masses to follow it.

Civilization, of course, can move onward and backward, as it has always done in historic ages, by resorting to rebellions and wars, regardless of education, legislation and finance. But, must we necessarily so move?

We should make a character-study of the Dreyfuss case, that we may come to understand the character of men in power and out of power and the disposition of the masses. This understanding might give us an insight into important affairs which are proceeding unobserved in this land. We may then be able to judge whether we should or should not be classed abong the **Ebionites** as a race, impoverished in powers of the understanding.

The Hebrew is not a warrior who aims to make his way by the sword, but he is a diplomat who has even now a hand in moulding the fate of our civilization. His diplomacy connects itself with rebellions and wars. It is well to know how diplomacy and war stand connected and apart. It is well to know the effects of beheading and dismembering great nations. It is necessary to

true to facts, and I feel convinced that I can take more minds along my apparently irregular way of proceeding, than I could by a more studious and abstract presentation of the subject.

The simple hints at fact come first in simple words which do

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harmonize all interests in civilization, regardless of creed or greed, in order to meet the changeful requirements of the Times and nip the forces productive of uncalled-for destruction at their roots, in the thoughts and "unnamed desires" of men in power.

The men who are today greedy for wealth or power tomorrow may grow tired of their achievements. Responsibility weighs heavily upon incompetency in control of civilized life. No individual, no classes or races of individuals are to be blamed for errors of creed, nor for the destructive work of greed, or the damnable diplomacy and deadly wars. The blame rests on the **ignorance** and **prejudices** of partially civilized humanity, which a one-sided system of education, opinionated legislation, and a silly system of finance imposes upon all nations.

By the study of intrinsic Fact-knowing, we may arrive at a recognition of the prevailing errors and shortcomings in the systems of education, legislation and finance.

The studious reader should not take the Jewish ideas presented in the footnotes lightly; they are about the profoundest, and at present, most important of ethical ideas which can be resurrected from antiquity. They connect the speaking intellect with mentality, and in this fact they differ from all other medieval writings and from modern science, which confesses not to know anything of mentality, but which does attempt to fiddle about psychological theories.

The three Hebrew words, **Nephesh**, **Ruah** and **Neshamah** are important pointers at the facts of our origing in the process of nature; although within themselves these words have little or no meaning. They point to the facts which have generated the God-consciousness in humanity, and when taken in connection with the physical aspects given in Chinese cosmogony, they will carry conviction to any sober mind that the God-consciousness is not an empty delusion, as are many God-ideas, but that it is the one true ethical footing of the mind, connecting itself directly with the original causes of Creation. We have no words like Nephesh, Ru-ah and Neshamah in our modern languages, and the existing words in out-of-date cults, which represented similar ideas, do not come as well explained as these Hebrew ideas.

The Rabbis have given their God-consciousness a firm footing in knowledge of facts.

TAKING STATEMENTS OF FACT LITERALLY BLINDS THE MIND TO KNOWLEDGE OF UNIVERSAL CAUSATION

The **sensus literalis** of words is knowable to the modern intellect, but it cannot understand the meaning of words and phrases which point beyond

not fit the facts as well as the later more complicated statements, but the simpler words are more readily intelligible.

The statements regarding integral and differential causation are true hints at Fact, their verbal inadequacies and inaccuracies, notwithstanding; they fit Fu hsi's formula of integrals and differentials, and that formula, seen from the viewpoint of vital truth, is as superior to any formula, which our mathematicians have produced, as is a healthy man to a stuffed monkey.

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literal definitions into the workshop of nature; it knows the form of all things and the character of none; because it will syllogize, and it will not use characterful language in truly logical ways; but on the contrary, it will misrepresent character and its descriptive names, as well as all truly logical descriptions of Fact, as empty forms of subjective definitions.

The modern mind has no understanding of that which Fact-knowers formerly called **canonical, apocryphal** and **profane.** The questions which we must make clear to ourselves are: What kinds of ideal presentations are **true** to Fact; what kinds are approximately true and what kinds are only relatively, apparently and delusively true?

For instance, the **Shekinah** as heretofore represented is only a means to the end of explaining the characteristic workings of vitality and mentality in a vulgar, profane and hardly apocryphal way. It is not intended to be canonical. It is only a means to the end of arriving at Fact-knowledge and at the **Torah.** The manner of explaining the **Shekinah** must adjust itself to the powers of comprehension in the mind to which it is explained. It can be explained canonically, so as to reach the **Gist of Fact** in the causes of evolution. But for such explanation it comes drawn into **One** circle, like the Chinese **Kua,** and when so drawn, we had better explain the original **Kua,** after which the **Shekinah** is patterned. I have elsewhere used the Egyptian Shekinah (Phthah-Osiris-Didu) for the preliminary explanation of the connection between the workings of life and of the intellect.

Means to ends are not canonical within themselves; they are made so by their use. No word-picture is canonical, unless it is rightfully used and understood.

CANONICAL, APOCRYPHAL AND PROFANE IDEEAS OF THE UNIVERSAL CAUSES OF EVOLUTION AN INVOLUTION

In the canonical writ of the Hebrews the evolution of the God-consciousness and of the Free-agency intellect in the human species is not represented as **coming directly** by inhaling vitality from the atmosphere, but from the connection of breath **(nephesh)** with **Ru ah** (local world-building power, which fits character into this or that form and environment,—the local periechon). The Ru ah stands presumably in interactive connection with the world-wide field of conscious energy in tendencies to vitality. That field comes described as the original source of life,—the **sokhet hotpit** or "**field of rest**" in Egyptian

By far the greater part of this work has been done by dictation at odd times, as I found myself at leisure. I have not been in the position to give it the exclusive attention which it should have received, in order to get as much "life" into the language as possible. I have not had the time to correct or even read all of the proof-sheets; but I do not anticipate that the subject will seriously suffer

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Myth—the one world-regulating power which Fact-knowers have called the divine source of life and which stands represented by the comprehensive God-consciousness in man. All other God-conceptions deal, at best, only with demiurgic powers in time and space; and all these powers combine Temporality with Continuity. They belong to local spheres of activity, known to the Hebrews as **Ru ah**, and to the Egyptians as **Sokhet Ialu.**

The connection between the local **Ru-ah**, or local world-building field of vitality, with the conscious energy in the world-wide field makes the world-wide **not-self** knowable to the living and thinking **self.** It enables the individual character to look into and know the starry distance. This connection is called **Neshamah** in Hebrew Writ. It brings the local energies in man, derived from his existence in this solar system, or speaking Scripturally, derived from the Elohim into touch with Eloah or as usually called, J. H. V. H., the world-regulating Principles of Life and Death. The **Neshamah** works into the higher, more or less dormant, consciousness in man, which enables his Free-agency will-power to follow fundamental principles and to minister truly to life's organic requirements, in **Jesod** as individual, and in **Malkuth** as a member or organic society; it does this by enabling him to unify the inwardness of character with its organic outwardness and further environment, in such a way as to maintain the order of life by doing the Right Thing at the Right Time—Torah, or the Spirit of the Written Law.

The human character grades itself upward in accordance with the evolution of its Fact-knowing powers, and it grades itself downward in accordance with ideal fancies, or thought-made visions. The God-consciousness was evolved by Fact-knowing. The word-vested, diverse and conflicting God-ideas are thought-made approximations or delusions. The whole ethical system in social life should be supported by Fact-knowing and not by visionary ideality. The canonical strains in the old and largely discarded Hebrew Writ are about the most available remnants of logical ideas, evolved in accordance with Principles of Life and Death. They stand alone as monistic standards, except the Chinese Shang Ti.

Our word **canonical** comes, of course, from the Greek word "kanon"; that word is used to refer to the "Rule of Right." What is that rule? Certainly not an opinionated figment; but the **principle** of procedure of the world-wide to-order-setting-power, which maintains cosmic order and the health of life. Therefore our word **canonical** should be understood to mean that, which fairly and fully represents the continuously healthful activity of character and the fitness of its temporary housings.

The to-order-setting principle is founded in the biaxial working of "atomic" and world-wide energy. The biaxialty in centers of indivisibly

by reason of verbal inaccuracies. Verbal hints at the subjective facts, produced in the workshop of thought, impress the mind much as do the phaenomenal effects produced in the workshop of nature; that is, they impress it not as facts sufficient of themselves, but only as **evidences** to be considered in their bearings and footings on natural causation.

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double-active energy controls the workings of all fermentative and digestive procedures throughout our world. Therefore is biaxiality a subject of most worthy consideration; considered so in all cults. All cults aim to hold thought to the parting, meeting and **unifying** factors in the integral, to-order-setting and the differential, means-providing work of nature.

The word **apocryphal** refers to the necessary and "timely" changes in these temporary housings of continuously working character.

Profane is any historic or euhermeristic narration of apparent events or conditions which does not take the work of character energy into proper consideration. (Further explanations follow in Glossary.) For instance, the story of apple-eating by Adam and Eve is **profane,** if taken literally, in which case the mind is led to believe that apple-eating is the cause why mankind is sinful and why suffering besets civilized life. This same story is **apocryphal,** if understood pictographically to mean, that feeding the thinking mind on fruit of the "tree" of contradictory ideas of Good and Evil causes thought to deviate from the order or logic of life, to misrepresent life's requirements and the powers which sustain its organic healthfulness; and that such ideal misrepresentation deludes the judging faculties, perverts the intellectualized will-power and converts the Good will of humane Free-agency character into the ill-will and hatefulness of daemonized character in man.

The same story is **canonical,** when understood to mean that the fully and fairly intellectualized will-power in human character has freedom to sustain or disturb the order of life, and that it must or should adjust its determination in accordance with the **Principles** which create, reproduce and maintain organic life in nature; for if these determinations deviate from these **Principles,** they work in deadly ways; they inflict suffering upon civilized life; they cause wordy wars which grow into deadly conflicts and entail social disintegration.

The canonical idea goes into the moral obligation of character to conform its workings to fundamental principles and not to visionary ideality. It insists that the logic of thought, of purpose, of reflection and of determination must adjust itself to life's fundamental requirements and to the all-to-order-setting procedures in the process of existence, which create and produce life and maintain health. Life must be maintained on the **principles** which brought it into existence. And these principles work **relatively** and **adjustively** in death and **reciprocally** and **organically** in life.

When thought leads life to transgress the limits of vital to-order-setting in lateral procedures, it speeds life deathward. Adjustment of life's lateral procedures can only be the result of to-order-setting determinations, formed after the manner of fundamental principles.

As no tree grows to phaenomenal perfection, so no verbal hint need or can be perfect; but yet its imperfection notwithstanding, it may make a truthful impression as evidence upon the discerning mind. Definite assertions tend to rob the mind of its freedom to discern the truth by considering the evidence; they do not leave the mind free to practice the rhetorical art of arts: Right-thinking and Truth-telling.

Thought dealing in abstract affirmations and negations, in contradictory ideas of Good and Evil, in theories and isms is not an adjudicator of contrary forces, nor an organizer of special aptitudes and powers in social life; but it is a disturbing factor in the order of mentality and vitality. Reflective thinking, if not adjusted to the to-order-setting principles in the process of existence, becomes a delusive and destructive force in civilized life.

CHARACTER AND SYSTEM

The people living under the absolute control of any system become enslaved to that system; and when so enslaved they have to fight for liberty; they must either subvert that system and make it subject to control of reasonable free-agency character or they will perish. It matters not what the system may be, it enslaves, when it comes to dominate over the order of life, over Right and Reason. The military, the hierarchial, financial, aristocratic democratic, bureaucratic or other systems have always grown into such rigid dominance as to enslave mankind. It matters not how well conceived the system may originally have been, and how well it may have served its purpose as a means to an end, it comes to enslave civilized mankind, when it is no longer controlled by true free-agency character; and it is never so controlled in the long run. All systems, in course of time, take an iron grip on human life, said antiquity. Sama-EL, the Jewish devil, starts as a body-making demiurge to give character its fitting housings, but he ends his career as the chief of devils. Remember him. The military systems built up German unity and made the people healthy and prosperous, but it has grown into oppressive proportions under the wings of the financial system. It now clashes with that system. The result is war to death or enslavement to the financial system.

The balance between these two systems cannot be restored, because, free-agncy character is lacking in their control.

THE MODERN SYSTEM OF EDUCATION IS TO BLAME FOR THE LACK OF TRULY ENLIGHTENED FREE-AGENCY CHARACTER IN THE LEADERSHIP OF CIVILIZATION

Our theologians do not train the mind to think understandingly and to evolve free-agency character. They teach the masses some knowledge of unmeaning words, instead of evolving the living consciousness of causation, the so-called God-consciousness, which makes the evolution of Free-agency character possible. If the theologians had not etymologized the meaning out of the biblical eponym: Philistine, there could have been no sudden outbreak

The proper way of elucidating the world-process does not lead through clearly selected and perhaps deceptive words, but through the one pivot of living and knowing, and that pivot is **the living character of language**—the so-called "Living Logos" which no modern thinker can grasp; therefore must we be satisfied with

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of war in Europe, nor any financial stringency in this land on account of the war in Europe; nor could there have been any danger of involving this country in the European death-struggle. Yet, would this land have been so involved, if the special session of Congress under the administration of Mr. Taft had succeeded in beheading the United States Senate, by putting a High Commission over it to do the bidding of **Secret European Diplomacy**, which was planning war on the German stronghold of militarism. Our classical students and Greek scholars have read the studied Homer's epics for more than 200 years, but they have not yet brought themselves to know the intrinsic meaning of a single one of Homer's character-names. They etymologize lustily, but they cannot reach a single one of the cardinal roots of language in human self-consciousness. They have no understanding of the connection between language and consciousness. Ask our Greek scholars: What means the word **palladium**? and they will give the puerile answer: Minerva, whittled out of wood. Thus answering, they name the symbol, but they do not know the meaning of the symbol. If they knew this meaning, they would know that the word **palladium** refers to the "Joker" in the system under which we live. When that "Joker" is abstracted, then no fortress of **prejudicial creed** or **privileged greed** can give security to life. Even Homer, traditionally blinded by words to the natural insight into Fact, still had intelligence and understanding superior to our foremost thinkers. The rape of Helen, the educational deception of the mind in the furtherance of system work, can never make a success of civilization. Yet, it has again occurred in our civilization. Our educators and News Agencies make all civilized nations live in the uncertainties of a dirigible wind-bag.

The God-consciousness is the only practical anchor in the public mind which can hold discursive thought to the logic of life and its fundamental requirements. Both modern science and theology have done their utmost to destroy or delude the God-consciousness in the masses, and with it, the foundation and mainstay of character and conscience.

The scientist says, I cannot know the inner workings of life and mind. God, if it is anything, is an unknowable and unnecessary quantity to me.

The theologians treat the God-consciousness, as the Christian Scientist treats the sick. He says to the people: Believe my words and ideas and all will go well with you here on earth, and your soul will be saved for your future life. God is good, to God-fearing men, even if he is invoked by the war-schemers and workers of the Christian murder-machinery. The word "God" is the only hold which theology gives to the modern mind to find its bearings in Fact, in Right-thinking, Right-speaking and Right-doing—in righteous endeavor. But even that word is grossly misrepresented. All references in scripture to that which theologians call "God" come learnedly misinterpreted. No theologian understands the workings of the God-consciousness in human life, much less the effects of words upon it. The theologian works as does the Christian Scientist, without understanding what he is doing. He palavers. The how and why his palavering produces some beneficial effects upon the mind is a deep mystery to him.

a lesser effort than the "Logos"; but not with anything less than a full elucidation of the eternal chain of natural causation.

THE TO-ORDER-SETTING POWER IN CREATION

Life, mind, thought, language, knowledge, all originate in the one to-order-setting power active within nature's elementary and

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No canonical writer ever penned the word God. It does not occur in truly sacred writings. All these writings point descriptively to the very character-energy in the orderly workings of life. These pointings convey no meaning to the theological mind, because it does not understand the workings pointed to.

SYSTEM WORK

The military system of Europe has done much toward the destruction of the pernicious feudal system which preceded it. It may be truthfully said that the military system has improved the physical and social life of the German people, although it was financially oppressive, having been carried on in accordance with an insane and inadequate money system. The German savants could not think understandingly and put any better financial system upon a satisfactorily working footing. Therefore, they find themselves now engaged in a death-struggle, which may destroy their nationality, if not the race. The cruder Slav knows instinctively more of land and finance in the requirements of civilized life than does the enlighted German. The religious training of the Slav has taught him: Be aware of usury, be prepared to pay with the sword, in the day thereof.

The Slav will accept bank-credits, if they entail no payments of interests and enable him to conquer territory. The Shintoist, whom we considered semi-civilized 50 years ago, has better understanding of the necessity to subject system-work to true character than has the Christian. "Tolerate no rule of wrong, even for a moment, lest it grow to overwhelm you."

Even the sleepy race of Chinese holds to its Li Ki in order to fit and refit system to character. Well may we congratulate ourselves that the word God is still revered in the mental workings of the people, although no one knows anything of God, beyond the name. The little word "God" does still give the mind some healthful footings in requirements of life. It does strengthen character and stimulate the living conscience, even if it does work only in a mysterious, back-cycling way upon life, and not understandingly, as it should.

The modern scientific system of education is slowly choking the last vestige of humane feeling out of civilization by its positivistic advance about outwardness. The effects of this advance may be seen on the world-wide battlefields, in the assassination of more peaceful nations by the cruder and ruder ones; all this to the end of enslaving the masses to financial system work.

It must be granted that our financial system is the youngest and still most beneficial of all systems under which we live; but it is so beneficial only, because, the superior Hebrew mind controls it. The Christian mind is altogether disqualified to either maintain or improve the financial system; it is even incapable of understanding the fundamental bearings of finance. While our present financial system has brought about a wonderful progress in all civilizations on earth, and while it may continue to work internationally with its present efficiency, it will not longer work well nationally. It is absurd to make the internal life of the diverse nations totally dependent on any international system. It is the old Philistine error, which many, many times has converted the garden spots of the earth into deserts. It puts the nations of

disorderly forces. That all-to-order-setting power is the **one gist** of all Facts; to it all verbal elucidations of cause and consequence should point; by its own self-conscious Light of Life and Right should all evidences be judged, be they those of words of mouth or those of special faculties of perception. And that self-conscious

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the earth into an unduly competitive wasteful and oppressive struggle; it engenders hatefulness and brings on revolutions and world-wars. No one idea of either financial or military coercion, no one nation, no one race, can dominate the earth at this time. Therefore will this Hebrew-Christian civilization proceeding in the ways of underhanded diplomacy and coercion, prove a murderous failure, if not brought into the way of Reason.

The Anglo-Saxon mind has no adequate powers of the natural understanding to comprehend the inner workings of any system. It can only know outwardness; it is a northern growth, fed by a foggy atmosphere, which is not propitious to either profound or high mental development. The Anglo-Saxon race can dominate the civilized world only by force, while led by the superior thinking powers of the Hebrew mind. The mentality of the northern races feeds on wordy judgments; it has little penetrating powers of reasonableness. It cannot readily reason from cause to consequence. Study the best of northern authors and note the narrowness of mental compass and the almost total absence of insight into Fact. The American mind is improving the workings of the Anglo-Saxon mind, mainly in consequence of a more or less happy mixture of racial differences in blood; but the American mind is still in the arrear of the Hebrew's mental development. The Hebrew mind can think understanding from **Nephesh** to **Ru ah**; it can connect outer sense with inner reasonableness; it can surround its character by suitable conditions; it can reason from cause to consequence within limits. But even the Hebrew mind cannot think from its **Ru-ah** into its **Neshamah**; it cannot think from reasonableness into the Reason of Living. It has lost much of its old-time understanding by indulgence in modern letter-learning. It now believes in the scientifically established relativity of all things, as sufficient to regulate civilized life.

The development of civilization cannot go beyond the range of mind-power, that controls it. If the mind-power becomes corrupted by education, then civilization must retrace its steps from the rule of reasonableness to that of deadly force. Deadly force will control our civilization 'ere long, if our educational system is not amended. There must be no secrets concerning the workings of financial world-diplomacy; there must be no mysteries, human or devine, about our understanding of cause and consequence; there must be no **Secret Diplomacy** in our national life, nor any monopoly of knowledge, concerning the motives of human endeavor, if civilization is to grow in the way of reasonableness. False education and distorted news items must not be allowed to delude the public mind. All matters of public business should be made an open book to the people by its educational institutions, so that diplomatic schemers may be deterred from planning ruinous system-work in the nation. Were it not for this necessity I would not trouble myself to explain the lost learning of ancient China and the physical aspects of the world-process.

The mind must secure its cosmogonic footing before it can find its ethical footing to ascend the Jacob's ladder of character evolution. The modern scientific education, with its innumerable theories of cause and consequence is slowly doing to death humanity's natural insight into the workings of character-energy, by obscuring not only the last vestiges of the God-consciousness in the human mind, but also its understanding of physical Facts.

Light of Life is a factor in the human economy, brought into it by the continuously working cause of life in the world-process and by **the living character of language** evolved into a possibly full and fair knowledge of Self and of the Not-self.

If I am inaccurate in details, I ask the readers indulgence.

Think of Darwin's superficial way of explaining the process of evolution without taking the process of digestion into consideration,—without considering the character in the adaptation powers of cell-life which determine the bodily development of the species—without even thinking about the source of consciousness or the development of mental organs, and totally ignoring the breathing process. Think of our astronomers, who speak of the sidereal phaenomena as if the solar system and life on this planet were the result of accidents, and as if the cause of creation was a mathematician! Think of the Platonic follies outdone by modern learning! Think of all the antique delusions taught in modern colleges and note that never a word pointing to the inwardness of Fact is mentioned to the scholar! Yet, do words so pointing fill the vestiges of the former **Height** of mental evolution. Think of our present financial system and of all the other innumerable evidences of the present intellectual reversal of natural intelligence as the effects of our educational system, and then judge why **Secret Diplomacy** can send millions to the slaughter, behead and assassinate great nations over night in order to maintain overworked and overawing systems of creed and greed.

The establishment of dominatin gsystems ruins nations by subverting character and conscience in the masses. The workers in the system are not to blame; they work by the "lights" which education places before them. The soldier gives his life to maintain the military system. The financier lies awake at night, thinking of the necessary extension of his system to meet the growing requirements. The denominational theologian devotes his life to sustaining his particular system of theology. He cries heretic at those who deviate even in a word from his system. The lawyer fights with equal energy for right or wrong to sustain the letter of the law. The notional moralist would make criminals of all mankind in order to establish his system. And all this deadly work in civilization is the result of superficial and delusive education.

The God-consciousness builds up civilized life and the thought-consciousness ruins it.

The God-consciousness needs no name; it needs insight into Fact, or faith in true character, conscience and good-will. The thought-consciousness is verbose in ways which separate the intellectualized head from the living and feeling self. A nation by intellectual verbosity beheaded, labors for its own disintegration. It converts its own parental garden into a battle-field and eventual desert. The remnants of dissociated factors of ruined civilizations ever gather again to resume the civilizing work in primitive ways. They may begin by gathering in "hundreds" or clans; they may establish a nomadic or similarly primitive system. That system grows perchance into a feudal system.—into a fortified principality controlled by a military, aristocratic, democratic, hierarchial or other system; it may work its way into an industrial or financial credit system, but as it so works, the dominance of one system must give way to the dominance of another in accordance with the changeful requirements of "timely" growth, even as the snake must shed it old and worn-out skin, to take on a new one and maintain its living character.

The world-process is ONE Fact which should be universally known; its elucidation should be recognized as the one gist of all intellectual development, and as the one necessity to social welfare; for intellectual development leads social development into success or failure—peaceful condition or deadly wars.

Ancient China, in the height of its intellectual development, considered the **universal knowledge** of the world-process as a necessity to the success of its civilization. Make all men know the Fact of Existence, as it is in itself, so that human judgment may be truly rooted in the natural understanding of active causation, and that diverse conflicting and irrational opinions may not come to disturb the order of life and of social evolution!

Ancient China considered the Fact of existence as a "**Sphairos**," not as a mere sphere, but as a workshop of harmoniously interactive characters in changeful **housings** enclosed. Men live in this **sphairos**, like ants in a hill, or like bees in a hive, workers and boarders in the "**universal kitchen**." They know the **inwardness** of the universal **sphairos**, by virtue of feelings, which acquaint them with the ever **changeful regularity** of character-activity in the self and also in the not-self; for the self has its natural connection (**Kang**, neck) with the not-self, as the thinking head stands connected with the feeling body. And they also know the **outwardness** of many things in the **sphairos** by perceiving their own special outwardness and that of other **housings** of special character-energy in the not-self.

Starting with these primal considerations, the Chinese sages undertook to evolve **rhetorical means** (seal-characters, star-symbols) of making the ONE Fact of Existence, the **sphairos** or workshop of nature universaly known, not by mere words of special and limited meanings, but by series or constellations of connected and interactive symbols, which could be interpreted by the naturally-working mind at all times and places, and which they explained by mythical stories and applied in practical regulations of social endeavors. All nations and races on earth seem to have copied and modified these educational endeavors of the Chinese with more or less success. All ages, but our age, seem to have made some effort to evolve an aphonic symbol language, fitting the integrity of Fact in order to promote the work of thinking understandingly and unifying human judgment in the one Gist of Fact.

In the stellar character-sgins of ancient China and in their mythical interpretation may be found the full elucidation of the world-process. But who would trouble himself to study these signs? Who, now, could study them in their original significance? If I find the modern mind inclined to consider my present merely objective exposition of the world-process, I may undertake to re-

produce the original meanings of the stellar character-signs of ancient China and through them work toward a "vitally" true explanation of the causes in the evolution of life, mind, thought and language. In this effort I will leave the truth-telling, star-characters out of consideration, for the reader may find my elucidation difficult enough to follow, although they are given in words which he knows subjectively. The study of symbolic signs and aphonic language calls for a special effort.

Before we can begin to dive into the depth of Chinese cosmogony, we will have to batter at the walls of word-fixed prejudices in the modern intellect. **Modern theology** has become a mere system of fixed prejudicial ideas. It has piled its prejudices high

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By explaining Nature's activity as a continuous process, I aim to open that wider range of comprehensive thought which has been called **universal knowledge.** This knowledge is needed to check the spread of learned delusions and of opinionated insanity, which our theoretical freaks are promoting through all channels of education. Civilization should be controlled by judgment which is based on the natural sources of immediate knowledge of Fact and which is true to life's requirements. Opinions and theories based upon the outer appearance of things or on word-knowledge should not control the human will and social life.

No betterment in conditions of civilization can come to this age except through the elevation and strengthening of the character of the masses. That elevation must begin in school and church by eliminating ignorance and prejudices and by holding the young mind strictly to Fact-knowing and Truth-telling. Science with its theories, and theology with its wordy delusions, are at the root of social calamities as much as is the financial system; and this system cannot be corrected unless the educational and legislative systems are corrected. The sorrows of governments and peoples working under faulty systems of education, legislation and finance are mythically presented in the Biblical story of Job. Eliphas represents the gold-system. Before we even discuss the character of the Biblical Elihas, we must bring ourselves to understand the character of Bildad and Zophar. We should reform the self before we attempt to reform the not-self.

The dominance of social system work must at all time work in harmony with a predominant righteous and humane character. System and character must co-operate organically; and both must keep pace with the requirement of changeful "Time." The learning of antiquity has devised zodiacal pointers and explanations of so-called **dynasties** to elucidate the subject of "Time" and the necessity of co-operative union in system and character; but the modern mind has no understanding of the purport of these educatioal means; it puts its own puerile, so-called historic or fantastic construction upon them. It palavers learnedly about words, the essential meanings of which it does not understand. It makes profane history of canonical writings; it belies and destroys the mental guiding thread of the thinking faculties,—the most valuable bequest which antiquity made to humanity.

above the level of sense, to make war on the source of vitality, as did the Titans of old. It has so piled up prejudices, because it did not and does not understand the logical use of language; it lacks the understanding necessary to distinguish the **canonical** and **apocryphal** from the **profane** interpretation of its writ. That lack of understanding, we need only refer to in foot-notes. It is only a side issue to this effort. But it is a deplorable factor in modern education, which must not be ignored, if Fact is to be made known by words, finally. The origin and evolution of life, mind, thought and language comes in lines of causation which are so closely interwoven that they cannot be well separated. We cannot or should not separate entirely the prejudicial theories of science from the

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Our politieal system has served us well, heretofore, it has displaced medieval tyranny and fanatieism by some free-agency powers, but it is now doing insane work.

Our eduеational system has done efficient work by holding thought and language to outwardness; it has made a great industrial nation of us; but it is now beginning to delude and destroy eharaeter and eonsciенee in the people.

Our finaneial system has brought about great betterments in soeial prosperity, but it is now proving itself inadequate to provide the growing requirements of our domestie and foreign activity. It begins to paralyze home trade; it works slowly for the impoverishment of the masses by eoneentrating wealth and its power in foreign finaneial hands. It threatens to finaneially subjugate and enslave us. The foreign world-financiers, of course, intend to improve their system. They mean to give us a better government, than our politieians are able to provide; they know more of state-eraft than do our politicians; but they, too, must work by the "lights" whieh eduеation has plaeed before them and the people. And these "lights" emanate from minds intellectually deluded to sueh a degree, that no reasonable adjustment of diverse and eontradietory opinions seems possible. Therefore must the learnedly established **war of words** eventually work up deadly eonfliets between the ruling systems and between its vietims. For instanee: The European world-financier says the military system of Germany is wasteful and a danger to the system of world-finanee. The men of the military system answer, if we disarm, the world-financiers will enslave us. Death is preferable.

Our land, so rich in natural resourees, so poor in domestie money, will some early day have to face a similar predieament. No one now knows of any reasonable solution. No one ean disentangle the interwoven systems in peaceful ways, beeause no one, so far, has learned to think from eause to consequenee.

No one seems able to see the diplomatie Napoleon of the Unseen Empire, who aims to control the fate of all nations in the old-time aeeursed ways, as young men will attempt to do when they attain more power than their reasoning faculties ean control.

prejudicial doctrine of theology; for both present only one-sided aspects of character and system.

Character and **system** come everywhere united in interaction throughout nature. Character-energy works everywhere by systematic means in nature, in life or death. The character-work we must consider in its connection with system-work, as two inseparable factors in Fact. If we consider these two factors as standing apart, we cannot arrive at true conclusions of judgment. When we examine elementary cell-life by the microscope we see how the body

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Now is the time to remodel our educational system, and make inwardness and character an every-day study. It is a simple study, after we have once learned to define words objectively and to use them after the manner of nature. Working words for the lust of learning subjective dictionary definitions is idle waste of time and vitality, when inwardness needs to be known. We must put an end to unnatural ignorance of all sorts and to all alleged mysteries—visionary, scientific, financial, diplomatic mysteries. We must be outspoken and truthful. We must, if possible, forestall and prevent in peaceful ways, the working out of national destinies by a few men, given to **Secret Diplomacy**, and working over-ambitiously in behalf of their inadequate and uncertain system. Surely our academic students, who make thinking their profession, can master the situation, if they exercise their remaining mind-powers to think understandingly, beyond the subjective meaning of words, into the workings of nature, life, mind and the determinig will-power of character.

The world financiers, thinking as best they can, see only ruin for their system and civilization if militarism prevails. The military nation, thinking by the "lights" before it, sees only ruin if the world financiers control it. Yet can both systems be made to fit the requirements of life, by thinking logically, beyond the prevailing intellectual limitation, ignorance and prejudice. The financial system, so inadequate and uncertain at present, can with the slightest modification be made a sane and reasonable system. The military systems can be made advance agents to the healthful growth of civilization; the two systems, now at deadly war, can work harmoniously. Neither can or should be destroyed or subjugated to the other. Both should be subject to Free-agency character—Right and Reason. And both would be conducted for the benefit of mankind, if the colleges placed vitally true lights before the people, instead of conflicting and confusing theories. The men doing deadly system work mean well, but they cannot go beyond their ken. The educators should be pathfinders in the way of reasonableness and not pedants, who follow the erring steps of former word-workers. Can the academies never learn to deal efficiently with great social issues, by throwing true "lights" on the inwardness of active causes? The characters which control the military and the financial systems are now clashing in a most unprecedented and uncalled for war. They do so clash because thought has failed to throw true "lights" on rightful, adjudicative and organic principles. The world-wide financial and the local military systems need each other; and civilization needs both, as

building centrosome works in connection with the character-building nucleolus,—how in self-division, they part to meet again in the scion-cells. We will see how the centrosome partly enters the nucleus to pass into the nucleolus by digestion, and how part of the nucleolus enters the nucleus to be absorbed by the digestion about the axis of the centrosome. We will further see how the bodily organs are nourished by physical digestion while the mental organs, although rooting lightly in some physical ectoderm, are nourished through the breathing organs. Body and mind grow by

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means to ends, but it falls into certain disintegration if absolutely controlled by either system, and it comes always to be so controlled. All systems should at all times be controlled by true free-agency character to suit the changeful requirements of the "Times." And education should prepare the way for such control.

The financial diplomats are seemingly the chiefs among the trouble-makers in modern civilization. They err and disagree in judgments of system work; they enter into a **war of words** with other system-workers, and disagreeing with them, they take recourse to instigating deadly wars. They use the News Agencies and Journals to stir the people into a frenzy by false information. If the people were made to know the purpose of **Secret Diplomacy** they would not fight each other. Neither kings, princes, republican presidents nor soldiers seek wars. The men engaged in Secret Diplomacy lead and force social constituents from head to foot of nations into deadly wars. The financial system has concentrated too much power in less than 20 hands—the hands of the Unseen Empire; and it is even now imposing too heavy a burden upon all civilizations on earth by its monopoly of credit-making power. It could not continue its present aggressive policy, if it could not control the systems of national defense—the military and naval systems. Some of the heads of these systems cannot be bought or bribed, hence does the Secret Diplomacy of the world financiers form a "Triple entente" with pliable heads of thoughtless nations, to wage a destructive war against the more obstreperous of military nations. Into such an "entente," this United States were to be drawn through the influence of former President Taft, and dependent journalism.

When it comes to giving undue control to great system work, great men are as ready to make trouble for the people as are little men to make trouble for their neighbors, on account of differences of opinion.

The financial diplomat has nothing to lose by wars; his life and limbs are not in danger; but he has everything to gain. War makes the few immensely rich world-financiers still richer, while making the many poor still poorer; for they have to pay tribute to financial skill by bearing the interest-burden on credits extended and on debts incurred. The money or bank-credit which is expended by fighting nations is not lost to the world-financiers, it goes back into their credit-making system, in fact, it rarely leaves that system, it is largely a matter of transferring book-accounts among the various constituents of the international clearing house system. The money and its credit-making power stays within the control of the international clearing house sys-

reciprocal interaction within and by relatively drawing on both, earthy matter and vital energy coming from the not-self into the earthy atmosphere. In all cases is life a periodic parting of the double-active self, a periodic meeting and a periodic unifying of two lateral and one central factor. (See Trichotomy in Glossary.) Three strands in the chain of living causation are weaving the

tem, to be lent over and over and to pile up interest paying indebtedness, ad infinitum. The deadly diplomacy of the **Unseen Empire** can only be brought to a peaceful and satisfactory ending by educational institutions which teach the mind to look into the inwardness of human motivity and to work in truly adjudicative, humane ways. The dreams of world-control by any one system, financial or other, is a deadly error.

The Greed for money and credit-making power and the greed for control of land will always be at war while system-work controls human character. The academic students could avert the ever-lasting struggle between control of land and credit money, if they would take the trouble to think into Height and Depth of character evolution, instead of thinking only in Double Extent, to form contradictory opinions of the One Right and of the One all unifying Reason—the middle column in rabbinical Writ.

A fragment from Hindoo myths may throw old-time "lights" on this subject: Kuvera, the God of **gold-greed** is an intellectual cripple. He lives in a mountain of petrified prejudices. He travels on the three legs of syllogistic learning. His body is bejewelled by the relativity of pretentious truths. He is a brother of **Yama Asiokershas,** the judge of the departed or enveloped reasoning powers in human mentality. Chasmalos, the genius of Hollow Talk, brings the souls, which are dead to Living Reason, before Yama, to be proved up, if reliable or not to serve the cause of gold greed. Out of those who are proven reliable, Kuvera recruits his diplomatic army of big-bellied, large-mouthed, switch-eyed (intellectual) dwarfs. These recruits are drilled by the fair-faced and sweet-voiced Asyorn and by her daughter Asiokersha, a personification of the intellectual serpent, which deceives all mankind by fabricated knowledge and news emanating from the intellectual cesspool on earth —the mythical "Ocean," who is the sire of Asiokersha.

The princes of India, for many years past, have been hoarding gold in bars of bullion for the evident purpose of giving the Hindoo race, some day, an independent financial and political system and of securing national independence from the foreign powers which at present control the government of India. If the Hindoos should ever succeed in regaining their national liberty, their princes would substitute some oppressive national system-work for the present foreign system-work. The oppression of the people would not cease, while character is lacking in free-agency powers. Only characterful educators, equipped with comprehensive knowledge of Fact and able to reason from cause to consequence can liberate the people from oppressions of system-work. The mind, deluded by wordy opinions and weak in character always works unwittingly for the enslavement of the people by some system-work.

Many Hebrew rabbis have been truly enlightened and characterful educators. The Hindoo race, like our own, has not had any such educators for

system-tissue in life about special character, active in protoplastic conditions, just as three strands of the inanimate causation are forming solar-planetary systems in sidereal conditions. The process of life and death is one of periodic counter-action in lateral system-work and of interaction in central character energy. The origin of

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long ages; therefore, it has fallen, as we are even now falling, into enslavement to foreign financial and military skill. If the Hindoos had an intrinsic understanding of their own Sacred Writ, they would know that false education is more potent at the "Root of Evil," than are the financial, military, legislative, political or other systems which enslave them.

Only characterful enlightenment and training of mental powers can prepare the people for true free-agency work and the enjoyment of liberty in civilization. Toward such enlightenment and training our educators should work. If they so work, they will speedily unify and harmonize scientific outwardness with religious inwardness; they will bring both sensible science and devout theology into the ONE Way of Reason.

The Rabbis, in their apologetic and controversial literature, assert truly enough that **"none of the messianic promises of a time of perfect peace and unity among men, of love and truth of 'universal knowledge,' of undisturbed happiness, of the cessation of wrong doing and of superstition, idolatry, falsehood and hatred** have been fulfilled by the Christian church." (Hizzuk Emunah).

The enlightened Jew firmly believes that he can do more for humanity than Christianity has done or will ever be able to do. What can the Jew do by the "lights" before him? What is he doing? Working for world-control by way of **"Secret Diplomacy"** and by means of enforcing payments of usurious interests on international credits. **Secret** Diplomacy has its roots in the mental influence of the **Kabbala Ijunith**, and the Philistine system of credit roots in the **Kabbala Ma'aseh**. To my mind, the moral wisdom of the **"Bath Kol"** in the secret Kabbala, with regard to the Hebrew's inheritance of the earth, might be summarized in these words: When two great **systems** are at war do not sympathize with either side. Play results. Berek (bless, or bend the knee to) the winner. Arar (curse) the loser. Thus, if the German military system prevails in the present Armageddon, the Hebrew should bend its knee to it and denounce the secret system-work of the English world-financiers. If, on the other hand these financiers prevail, he should bless them and curse the military system. At no time, however, should he take part in bringing about the deadly struggles of system-work. It is evident that **"universal knowledge"** does not prevail in Christian lands. Opinions, conflicting and contradictory, rule all modern civilizations. The Jewish mind, like the Christian mind, is largely given to the assertion of war-working opinions. Secret, selfish, opinionated diplomacy brings the Christian murder-machinery into action. **Prejudicial creeds and privileged greed** always has and always will work up deadly wars. Errors of judgment, stupidity, ignorance and opinionated self-assertion are the original causes of sin and suffering. A nation which is so stupid that it makes its internal system of finance depend on an absentee

life and death of mind and matter is not hidden in mysterious causation, but its inwardness is barred from special powers of sight by wordy vails and prejudices. The present arrogance of pseudo-science furnishes the more irresistible prejudices of system than does theology. With the former I aim to deal mainly in the text. The prejudices of theology, being of lesser resistance, I will touch upon in the foot-notes only.

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financial system is not fitted for self-government and deserves to be subjected to Philistine control of its national life and to the enslavement which this control entails.

The world-financiers, who are obsessed by the Philistine-idea that the Hebrew race can inherit the earth by virtue of its ownership and control of all real money and its credit-making power, err in their judgment as do stupid nations. Goliah is not a world-power. The Palladium may be abstracted. Secret Diplomacy is a dangerous means to deadly ends. Safety and peace are not with murder-machinery, nor with secret conspiracies which work up wars. It is written: "**Thou shall have nothing to do with secret things.**"

The progress of civilization and the welfare of humanity can only be secured by Fact-knowing, Truth-telling and Right-doing. The Hebrew's superior mind-power can inherit the Earth only if it hold to its **Torah** and practices **Zeda kah**: Righteousness and Justice tempered with mercy.

The Hebrew mind has the superior ethical footing in Fact; the Christian mind has the superior cosmogonic footing. Neither are true to **universal** knowledge. Both footings must be perfected and harmonized, if civilization is to grow into the ways of healthful peace. Put both, the foremost Hebrew thinkers and the clear-headed Christian thinkers into an intellectual "melting pot" of natural intelligence and good-will and thereby eliminate all opinionated delusions—the diplomatic Napoleon and the murder-machinery which serves him and which opposes him.

The documentary evidences of "**open**" diplomacy, which were designed to throw delusive light on the causes of the present war in Europe, have been published by Liebheit and Thiesen of Berlin, under the title: **Germany's Reason for War with Russia.** These documents should be read in connection with the **Will of Peter the Great**, made public by Voltaire, in order to obtain a glimpse into the character of the "**Secret Diplomacy**" of schemers for world-control. Of course, England's "**Secret Diplomacy**" of the present day differs from Russian diplomacy of the Eighteenth Century; but human character promotes its undue ambition in much the same dark and crooked ways at all times. If these ways were thoroughly and widely, comprehensively known, then men could not be induced to fight each other en masse and to subjugate the surrounding nations and races to financial world-control.

The Hebrews are said to have lived in strictly separate colonies among the Chinese race since 1100 before our era. The last of these colonies have recently melted away. In the beginning of the sixth century, the Empress Dowager Ling undertook to rid China of all superstitious sects. She permitted the remnants of the Hebrew colonies to remain because their religious faith corresponded to the Imperial Cult of ancient China and was virtually an adaptation of the Great Learning of ancient China—a conversion of the objective knowledge of Chinese cosmogony into subjective, Jewish cosomology.

Our historical flat-heads tell us that the Chinese phrase: Taow-kui Kiaon (ham-stringing) referring to the sect that cuts out the sinews, was applied to the Jews in China, because they extract the sinews of their sacrificial animals, as does the butcher who hangs up a carcass by the knee-joints.

THE WORLD-PROCESS HAS BEEN KNOWN IN ALL OF ITS IMPORTANT FEATURES AND PHASES.

The assertions here made, to be explained and proven are:

The world-process, which produces the phaenomena of life and death, is knowable in all its features and phases of activity. It has been thoroughly known by thinking men, during past stages of intellectual development, on the Asiatic and even on the American continents.

If we closely examine the evolution of living languages we will find that not only the natural causes which are active in human life, but the world-process and the eternal chain of causation must have been thoroughly and widely known, in order to give languages their present character and form. And it is only because the world-process has been widely known that it is possible, by means of language, to again explain it. Of course, grammatical languages are not as suitable for that purpose as were the pre-alphabetic and more natural forms of language, and it is necessary at times to fall back upon earlier modes of expression and words which have a more comprehensive character than have our present dictionary terms. In fact, to arrive at a thorough understanding of the world-process, we should familiarize ourselves with the pre-historic, aphonic sign-language, the parent of all alphabets; but this would require years of study, to which no one as yet has devoted himself.

To know the world-process means to know the eternal chain of natural causation as it is in itself; it means to know the active causes which produce planetary systems, vegetable, animal and human life; it means to know the origin of all life and the causes of its varied development and evolution; it means to know the origin of mankind and of ideas; it means to know whence we come, whither we go and why we are here; it means to know that which modern science calls unknowable.

WHY THE WORLD-PROCESS IS NOT NOW KNOWN.

There are many reasons why the modern mind fails to take a comprehensive view of nature's work.

First: Modern thought fails to note that nature does her work of life and death as an unending process.

Second: It ignores altogether the workings of character, as the one determining power in all cosmic activity.

Third: It overlooks the fundamental counter-tendencies and capacities which are active throughout the universe.

Fourth: It ignores the elementary consciousness of life, and with it the possibility of knowing acts of nature as they are in themselves; it ignores that which is universal and individual in consciousness, and it deals only with classification of generalities and particularities, which are thought-made substitutes for living consciousness. All general and particular ideas are characterless artifices, which can represent Fact only in an abstract way. They can serve the mind only as intellectual tools.

Fifth: The modern way of thinking is an unnatural way of dealing with the fundamental knowing powers of the mind. These powers, like nature, are double-active, while the modern way of thinking is single-active and analytic, and never truly comprehensive. Modern learning pays too much attention to the work of the senses and that which is patent, (phaenomena), and too little to the undercurrents of nature's activity — to the latent tendencies which underlie active capacities.

Sixth: The modern use of language causes thought to represent all of nature's mobility by one-sided, fragmentary and statical ideas.

Seventh: Modern philologists ignore the necessity of holding to that flow of language which can follow the changeful movements of nature's activity and of its determining character. They over-develop and misapply the grammatical use of language. and ignore all the other necessary uses to which language must be put, in order to serve the human knowing-powers in their special changeful procedures.

Eighth: Modern learning disseminates altogether too much

alphabetical word-knowledge of the analytic type; it indulges in too much hollow talk about 'ologies and 'isms, theories, hypotheses and imaginary laws of nature. Proceeding as it does, it accomplishes great results in the mechanical control of natural forces, but it cannot comprehensively deal with questions of life and death, of right and wrong, of good and evil. It does much toward perfecting man's adaptability to environment, but nothing to evolve his inner, self-conscious knowing powers, nor his social, civilizing character. The talk about phaenomena, which ignores the character of the inner determining powers, is hollow talk; **vox, et praeterea nihil!**

Ninth: Modern learning develops many valuable intellectual tools, but it neglects to evolve the reasoning powers in human character, needed to put these tools to comprehensive use.

The late Professor Huxley, the father of modern agnosticism, has convinced all learnedly enlightened minds that the causes active in the process of nature are imperceptible and therefore unknowable. Huxley's ideas have become the accepted dogmas of scientific thinkers, and this fact has put an end to all arguments on this subject.

The question of knowability seems to be settled, but it is not rightfully settled.

Natural causes are imperceptible and unknown, but they are not unknowable. They are unknown because scientific thought does not go to man's original knowing powers for its information; it goes only to sense-perceptions, and these perceptions are only special secondary sources of knowledge, and they represent only a small part of the original knowing power out of which they are evolved.

Huxley was a thinker, but he was not a Fact-knower; he was only a phaenomena-knower and a knower of words formed to deal with phaenomena; he knew all about the special aspects of Fact or phaenomena which had found representation in dictionary words, but the imperceptible causes of phaenomena had not found such representations, and hence he did not know them and found them unknowable. He said, in substance: I do not know the causes active in nature and I do not find anyone who does, but I know any number of pretenders. To bother with these false pretenders I have neither time nor mind.

The position Huxley took must be shown to be untenable before the mind can be rendered susceptible to the elucidation of natural causes.

Any man who asserts that he knows natural causes must make it clear why and how he does know them, before any one will listen to him.

If the mind will just divest itself for a moment of all its detailed knowledge of phaenomena, and of its preconceived opinions regarding the unknowability of unnatural causes, until the comprehensive view of the world-process has been finally laid before it, then it will be able to understandingly fit its present detailed knowledge into the comprehensive view hereafter given.

I would ask the reader to reserve critical examination of details until the end of these explanations.

HOW ARE THE IMPERCEPTIBLE CAUSES KNOWABLE?

There are three or four sources from which the knowledge of natural causation can be derived.

First: By a certain analysis of our own mental activity. Such analysis, however, has not yet been made by our scholars. It is exceedingly difficult, because dictionaries contain no suitable words.

Second: Through the Fu-hsi school of pre-tartaric learning, which formulated natural causes. The work of this school has not yet been brought to modern knowledge.

Third: By the remaining vestiges of the sibylline school of thought, which make a knowledge of the world-process the foundation of all sacred writings; and by the fragments of Herakleitos' work **About Nature.** Both these sources present great philological difficulties.

Fourth: By the extension of the present limited knowledge of natural causes. This extension, however, is not easily effected by the modern methods of education.

Examining these sources in detail we may note:

FIRST: THE ANALYSIS OF LIVING CONSCIOUSNESS.

Imperceptible causes arise primarily in the mobility and motivity of human nature, and in the consciousness of feeling which attaches itself to the powers of life active in man.

The senses or faculties of perception have been evolved out of the primary consciousness of feelings in the process of living; they have been evolved for the purpose of knowing the outer interaction of things in special ways, but they give no information about the inner and imperceptible causes to the thinking mind; these inner causes can only become known through an analysis of the elementary consciousness of feelings by the thinking faculties. Modern language contains no words needed for such analysis, and modern learning does not even understand the use of words which makes such analysis possible . Hence Huxley's position remains undisturbed, so far. However, twenty years from now, every schoolboy will know that Huxley's agnosticism is a vestige of unnatural ignorance, learnedly acquired and cultivated.

The imperceptible causes are knowable. They have been thoroughly known, and they will again become so known presently, when the drift of modern thought advances in that direction. They are easily knowable. Any normally minded schoolboy of fourteen years should know them, if he were properly educated.

All tendencies and capacities of human nature and activity are imperceptible, yet all of them are knowable and most of them are known to some extent.

The thinking world would soon know the workings of natural causes if the young mind were trained to look into its own inner motivity, character and self-consciousness, by use of suitable rhetoric, as much as it is now being trained to acquire a knowledge of those means which serve to know phaenomena .

All phaenomena in nature are products of inner causation, of **imperceptible tendencies and capacities in the undercurrents of the world-process and of outer interaction.**

These undercurrents are not unknowable, in fact they would be easily knowable if we had words to describe them and were familiar with that use of language which can follow the workings of imperceptible causes. But as modern dictionaries do not contain any such words, and as the present grammatical use of language is not suitable to depict the counter-activity of elementary forces, the reader will experience uncommon difficulty in making the subject clear to himself from what can be said here, unless he can bring himself to realize that words, as here used, are only hints at something going on beyond the realm of thought, and that language has various ways of connecting itself with consciousness.

Various kinds of definitions are needed to make known all the work which language can do in the human mind. The definitions hereafter given the reader will have to memorize and distinguish from the definitions given in dictionaries, if he wants to get a clear insight into the inner workings of nature's activity.

In order to know the undercurrents and, through them, the entire process of nature, thoroughly as it should be known, the mind must overcome philological difficulties. It is with the work of knowing the world-process as it is with almost everything else. The work is easy if we know how to do it and have suitable and efficient means at our command.

The human ability of thinking and speaking and of obtaining knowledge of nature has been evolved out of the more elementary powers of human life — out of man's powers to feel and know that which is going on within him — out of his emotions, appetites and susceptibilities — out of his motive characteristics and self-conscious tendencies and capacities to live.

In early ages of intellectual development, the attention of thought and the use of language naturally directed itself toward man's inner life, as much and at times even more than toward his outer life, and hence the inner workings of human nature and the so-called imperceptible causes active within man became as widely known, and even more widely known, than the outer, perceptible workings.

Antiquity never knew the outer, perceptible workings of nature as well as they are known now, but it did know the inner workings very thoroughly; in fact, at a certain stage of intellectual

development, humanity had succeeded in uniting the inner and outer workings of nature and of human nature in a full and fair knowledge of natural causation. It had learned to know just how and why the undercurrents of nature's activity produced the phaenomenal effects.

Antiquity had evolved two kinds of rhetoric, the aphonic sign-language, long since lost, and the phonetic or alphabetical languages, still in use, and it had united these two kinds of rhetoric in a third kind, the epic, or so-called sacred use of language, which served to depict the workings of natural causes, their within, their without and their harmonious middle course.

The epic type of language seems to have been often lost and recovered; its frequent loss was probably due to the fact that it was based on the aphonic sign-language, which was difficult to learn and not of much practical use in the bread-winning struggles of daily life. These struggles had to deal with the world without, with man's environment and his ability to use the opportunities it offered; and alphabetical language alone served all these purposes. Aphonic language could only deal with undercurrents; and the knowledge of undercurrents was required only for the higher purposes of organizing society on living principles. Hence, aphonic sign-language was of use only to men who specially devoted themselves to organizing social and national life, and these men were always few in number in human society; they were specialists, who labored to educate the world, to evolve free-agency powers in the mind, and capacity to establish a peaceful social relationship among the factors active in national life.

Within early historic ages, these special educators developed themselves into hierarchal powers; they either worked by the side of the administrative powers in national life or they usurped those powers. They never continued for any length of time to pursue the troublesome study which would have enabled them to know what they ought to have known. They moved, like everybody else, in the line of least resistance; the pretension to know was to them as good as knowledge. Who could disprove their pretensions?

Even before historic ages, the aphonic sign-language had thus become unknown, and with it had disappeared the ability of doing truly epic or canonical work.

Homeric poetry is a marvelous word-picture and infinitely superior to anything which could be done at present in that line; it has great and unrecognized merit in elucidating the now unknown causes of social disturbances; yet it is not a true epic, for it does not fully elucidate the causes which can establish peace and harmony in social life.

The Septuagint, the father of our Old Testament, is also a wonderful work in explaining the use of thought and language which make civilization a success, yet it is not truly canonical; it is a dead carcass, lacking both some head and some tail, and its original spirit of life is not intelligible to anybody who studies its present translation without understanding the undercurrents of existence.

No learned thinker of this age understands the undercurrents of life, mobility and activity.

Our race has produced but one thinker, Herakleitos the obscure, who thoroughly understood the workings of nature's undercurrents. He called them "pheromena"; but he did not thoroughly comprehend the natural union between "pheromena" and "phaenomena", and that is probably one of the reasons why he failed to make himself understood; another being that his knowledge of the aphonic sign-language, as well as of the epic type of language, seems to have been very limited. He expressed himself too largely in terms to do the subject justice, perhaps being obliged to do so for the reason that the intellectual development of his age had already started on its terminological career. The philosophical word-knowers, logographers and other guessers at Fact, began their vain attempts to explain nature's workings in his age. Hollow philosophical speculations and sophistries have ever since characterized the intellectual development of our race.

For the last two, three or four thousand years, no one seems to have understood the world-process well enough to make it generally known, yet is that process easily knowable. Vestiges of that way of thinking which once made it known still abound in the art and literature of older ages. To read them is easy, when one knows the rules by which they were formed.

The rules governing the use of thought and language, which make the world-process knowable, are so easily known that any normally minded man could come within a few years to know them so thoroughly as to evolve a full knowledge of the world-process out of his own original knowing-powers.

SECOND: THE FU-HSI SCHOOL OF PRE-TARTARIC CHINA.

This school made the imperceptible features of the chain of natural causation knowable by the so-called Great Learning (now practically lost) and by the Logic of the Mean.

The Great Learning looked upon the consciousness of life, which characterized the mobility and motivity of human nature, as the elementary knowing power out of which the thinking consciousness had been evolved, and it analyzed this living consciousness by certain now unknown means; it made spoken thought follow the procedure of natural causation in the process of life. It formulated this certain way of thinking, (Tao, or logic of the way of life), by a certain way of mental analysis, which made the imperceptible causes known in their lifeless mobility and living motivity; it gave the world the Yh-king or Book of changeful procedures in natural causation.

The teachings of the Fu-hsi school are lost to modern learning and even to the Han-lin college, the present school of Chinese thought. This school has preserved or resurrected only fragments of the pre-tartaric school, and of these fragments it makes only a mechanical use; it lacks the necessary genius to fully and fairly interpret the old-time, life-like work of thought.

The Jesuits, who studied pre-tartaric learning through the present school of Chinese thought, have not thrown much valuable light on the Fu-hsi school.

Mohl, who attempted the elucidation of the Yh-king diagrams, drew largely on Jesuitic sources, but says little that is notable or efficacious in throwing new light upon the subject.

Legge, who attempted to translate the Chinese classics, was a word-knower, but did not understand the subject; he did not understand the difference between the use of words which represent statical aspects of fact, and the use of language which can depict

the natural causes in their activity — in their natural principles of procedure. Some kind of rendering of the original words may be in his translation, but the original meaning is lost or obscured.

All other modern writers on the subject did less valuable work than did the Jesuits, Mohl or Legge. Hence no information regarding the imperceptible causes can be obtained from Chinese learning, as so far rendered.

THIRD: THE SIBYLLINE SCHOOL.

The sibylline school of thought propagated the work of the old Fu-hsi school in probably all great pre-historic civilizations, adapting it to the then spoken languages.

What the Ancient Romans are said to have known as the sibylline books has presumably been destroyed; but those books, if a real Roman version of them ever existed, were but a small fragment of the work produced by the sibylline school.

The word "sibyl" is a character-name, and as such, is subject only to the prosopopeia-system of definition. It means the procedures of the one in the two; viz., the procedures of natural knowing powers in the counter-procedures of life and of death. The Roman "bulla" is one of its aphonic signs or symbols.

The sibylline school of thought aimed to evolve Free-agency Powers in the human mind and intellect; it aimed to make the **thinking consciousness** the **Free-agent** of the **living consciousness,** which does the creative work in nature. It did this work by elucidating the cosmic, creative and organizing principles of procedure in the process of nature. It made the knowledge of the world-process the foundation of the human intellect.

The Brahmanic and Zoroastrian versions of sibylline thought were not destroyed, but their original meanings were entirely lost in the present interpretations. Nor was the tendency of the human mind to think in rational ways, as fostered by the sibylline school, totally lost; it continued and still continues to live in the civilizing instinct of man, and it is easily resurrected into definite knowledge.

The natural tendencies to think rationally, and the civilizing instinct, by sibylline thought evolved, had given birth to the Great

Cults of antiquity. They had regenerated themselves among the Hebrews; they had caused the Talmuds to be penned and also the Septuagint.

The so-called sacred or inspired writings, which in early historic times emanated from sibylline thought, seem to be more or less defective. They were seemingly written by thinkers who did not have a clear enough idea of the imperceptible causes to understand the workings of the world-process thoroughly, at least they did not give much evidence of understanding the sidereal process, which originally was made the foundation of the intellectualizing and civilizing processes.

Herakleitos undertook to remedy this defect by explaining the world-process, and thereby giving the intellectual movements of his age a clearer footing in Fact than could be derived from the then existing sibylline sources. He was a foundation-builder, and possibly the only true dogmatist ever produced by our race, but he was a dogmatist only; he did not attempt to build into the intellectual height. Of his writings only a few fragments are known to remain, and none of these fragments have ever been properly explained, so as to restore their original meanings.

Few, and often seemingly senseless, as are the Herakleitean fragments, they are quite enough to put our speculative scientists and mathematical astronomers, our geologists and biologists, and in fact all philosophical guesswork or scientific hypotheses and theories regarding causes of physical phaenomena, on the curio-shelf of unnatural ignorance in this presumably enlightened age.

From Herakleitean thought we will have to borrow the words needed to explain the world-process, if we do not want to go back at once to the words of pre-tartaric China, which are far removed from our language.

The New Testament may here need mentioning as an off-shoot from sibylline thought. Some of the New Testament writers certainly understood the workings of natural causes, and they understood also something about the use of language which makes the causes knowable, but their writings concerned themselves mainly with causes active in producing the deplorable conditions existing here and there in the Roman empire.

These writers accepted the sibylline lines of thought, laid down in the Old Testament, as sufficient for the intellectual guidance

and control of civilized life, and they built upon the Herakleitean dogmas.

While the New Testament writings in a way conform to the once prevailing knowledge of the world-process, they do not throw any particular light upon the procedures of natural causes in the elementary process of nature. In fact, all vestiges of old-time thought, which were based upon a knowledge of the world-process, are unintelligible to the modern mind, for the reason that it is almost impossible to represent the changeful causes in their activity by the grammatical use of terms which have fragmentary and statical meanings, such as our dictionary terms.

The mind trained to know only dictionary words and their fixed categorical definitions cannot read the thoughts and intent of thinkers who used language in natural ways to depict nature's mobility and motivity, and for this reason the original thoughts and intent contained in any so-called sacred writings, the Bible-work included, are inaccessible to any modern thinker.

What the modern thinkers know of the vestiges of the sibylline schools of thought, of the so-called sacred writings of pre-historic times, and even of the New Testament, is what they think they know, but what they think is very unlike the thoughts and intent contained in the original works which they labor to explain.

The original thoughts and intent, in so far as they refer to the world-process, are altogether lost in the translations, although these translations may be true to the letter.

The rhetoric which must be employed, and which has been employed, to represent the workings of natural causes, differs widely from the rhetoric now in use.

Until this difference in the use of language becomes known, the old-time works of thought cannot furnish any information to the modern mind concerning the world-process.

The vestiges of sibylline thought, which elucidate the world-process and the natural causes, are innumerable, but the original meanings of these vestiges cannot be deciphered while modern thinkers remain ignorant of the difference between the natural and the artificial use of language — of the difference between the organic and the systematic use of language, or of the difference existing between the prosopopeia-system and the categorical system of definitions.

The use of language which can elucidate the changefulness of the powers of life and their inherent consciousness of feelings, is very different from the present grammatical use of language, which can only represent statical aspects of fact. If this difference is once made clear to the people, our entire educational and legislative systems will be changed, and the world-process will become known to everybody.

To illustrate the difference between the original thoughts and intent embodied in the Bible-work and the present ideas on the subject, I will add a few lines regarding the Old Testament to the end of this article.

I have produced and explained a few of the vestiges of sibylline thought in my "Introduction to Errors of Thought," and I will publish several hundred more of these vestiges, with explanations of their original meanings, in the illustrations to **"The God Sham."** about to be printed. But, while a knowledge of the world-process is lacking, the most penetrating thinkers will not be able to readily digest the meanings of these vestiges, and it will take years of hard study on the part of the best posted archeologists to get a clear and comprehensive idea of the explanations given.

Thus far the sibylline school of thought and its lost knowledge of the world-process, of the eternal chain of natural causation, of natural causes as they are in themselves and in their own mobility and motivity.

FOURTH: THE KNOWABILITY OF NATURAL CAUSES FROM OTHER THAN LEARNED SOURCES.

Everybody has some knowledge of natural causes. The man who makes up his mind to play a certain card in a game of whist knows that his determination is the natural cause of his act of playing. If he has noted the previous fall of cards and by it has been influenced in determining his play, then he knows secondary causes. If he knows the principles of the game or has an instinctive prompting, or a theory to make certain initial leads from certain holding, then he knows primary causes or promptings. The knowledge of primary and secondary causes is the initiative and referendum to his determination, and his determination is the natural cause of his play.

As with a game of cards, so with every act of life.

Primary or secondary causes or promptings always deal with underlying principles and with outer opportunities for action, and these two kinds of causes always act as initiative and referendum to the determining powers of life in the process of nature, as well as in human life.

Every man knows much of the causes of his own conduct, but no man knows natural causes well enough to properly support the order of civilized life by his ideas of cause and consequence. No one knows the underlying **principles of life** which control all development and evolution, and everybody substitutes his own theories for the **principles of life,** which he should understand. In order to know the workings of natural causes well enough to make civilization a success, our intellectual leaders, at least, should understand, not only the principles of life, but the very process of all development and evolution.

To understand the causes of evolution would be easy, had we efficient means to develop our natural understanding of cause and consequence. The means needed are words suitable to form natural chains of reasoning from cause to consequence. Of these words we have but few in our dictionaries, and those which we do have are not defined in a way to suit the purpose of knowing the active causes of creation. But even if they were properly defined, we might still lack the ability of properly using them, for the ability of reasoning from cause to consequence is not being developed in any of our great institutions of learning . This need of means and lack of ability to use means we must remedy if we want to know the world-process thoroughly.

For the purpose of elucidating the world-process in its fundamental workings and sidereal outlines, we will only need a few words from Chinese or Herakleitean sources, but we must define these words in other than dictionary ways, so as to restore their original meanings.

Anybody who can remember the few words and definitions given further on, can eventually come to know the world-process if he follows up the subject.

THE REASONS WHY WE SHOULD KNOW THE WORLD-PROCESS.

Before attempting to give even a preliminary idea of the

world-process, let us make clear to ourselves the reasons why we should know it. These reasons might be summed us as follows:

The causes which generate human life, its knowing and doing powers, are also the very causes which maintain human welfare. These causes must be explicitly known to the thinking ego when it undertakes to guide and control civilized life.

Most of the following statements of the reasons why causes should be known are taken from sibylline sources, and their ideograms and iconography will be fully produced in the illustrations to "The God Sham."

Human knowledge controls the work of civilization.

Knowledge is a compound of two factors; first, the natural knowing powers vested in elementary consciousness of life, and second, the thinking faculties; both by language developed and evolved; it is a compound of natural intelligence and of acquired intellectuality, and this compound is properly called mind; it includes the capacities of feeling and of thinking.

THREE KINDS OF MENTAL COMPOUND.

In the primitive mind the natural knowing powers predominate over the thinking faculties.

In the civilized mind the thinking faculties become intellectual powers, and these powers come to predominate over elementary consciousness and powers of life.

In the over-intellectualized mind the thinking powers detach their work from the living power, they become self-sufficient, they ignore the living and natural knowing powers; they formulate and establish artificial laws and rules, not only for their own workings, but for the control of individual and social life; they delude the natural faculties of judgment by intellectual artifice; they pervert the natural workings of the reasoning powers, and they misdirect the determinations of the human will-power; they eventually establish an unnatural and tyrannical rule in civilized life.

Civilized life, if properly established and carried along, has many great advantages over uncivilized life.

Man by nature is an animal and he originally lived like an animal.

That which elevated man above the animal world was the so-called gift of language; it evolved the intellectual powers.

The gradual evolution of the powers of language evolved man's superior thinking powers; it gave his natural knowing powers a superstructural intellect and enabled him to establish a **friendly or social** relationship in civilized life, instead of the **fatal relationship** of his primitive or animal life. **The intellect,** properly evolved, enables man to overcome the **outer relativity** of things, which places the struggle for survival on a war-footing, by organizing society in accordance with **living principles,** and by establishing a **reciprocal order** of interaction between man and man, that is, giving and taking equitably, or causing all men to live, not only for their own good, but also for the good of that society of which they are constituents.

The properly evolved intellect makes it possible to so organize society that it cares for the welfare of every individual in it, and it makes every individual wishful to care for social order and for the welfare of his fellow-men. As the eye and arm work for the human body, so does the body work for the eye and arm. This reciprocal relationship, by organization produced in the process of nature, should and can be extended into the process of civilization by properly evolved intellectual powers. The intellect can act as an organizing power in social life, even as the Genius of Creation acts as an organizing power in the process of nature. It can make the thinking ego act as a free-agent of the Genius of Creation; it can extend the principles productive of organic life into the process of civilization; it can evolve the gregarious nature of primitive man and convert it into civilized nature; it can extend the natural sympathies of family relationship into the workings of organic civilization; it can substitute sympathy for antipathy, **organic reciprocity** for a **non-organic relativity,** but it can do this only if it understands the **fundamental principles of life,** and adheres to them in its determinations of human conduct, individual and social. Unfortunately, it but too often lacks this understanding and adherence.

Only the power of organic language in the mental economy of man can evolve free-agency power.

Were it not for the gift of language man would still be a mere animal. The gift of language then, is the natural cause of the conversion of primitive man's animal feelings and knowing powers into human feelings and intellectuality.

Language gave man the power to evolve explicit knowledge of fact out of his natural but only implicit knowing powers. Language made it possible for man to develop his thinking faculties and to communicate his ideas.

Language evolved man's crude genius for organizing, so as to make civilization possible.

Language so evolved the thinking powers of man that the thinking ego could act as the Free Agent of his own living self and of the causes of life — of the causes of man's creation. But the type of language which so served man was the organic type of language which is no longer spoken. The grammatical type has taken its place, and this type wrought confusion in the realm of ideas and so obscured the workings of natural causation that the work of civilization suffered destruction, because of unnatural ignorance and of errors in the way of thinking and of guiding individual and national life.

Intellectual leadership, which lacks knowledge of natural causes, will always make a failure of civilization.

The natural causes which evolved animal life also evolved the primitive nature of man.

The causes which evolve life sustain it — its order, its health and welfare.

These causes should be explicitly known by every civilized mind, and especially by those who attempt leadership and control of human affairs.

The civilized mind should be so well enlightened as to the workings of natural causes that it can reason from cause to consequence with due degree of certainty.

If the workings of natural causation are not thoroughly understood, then opinions will come to rule civilization. Unnatural theories will be invented, and unnatural opinion-made laws, rules and regulations will be formulated to control individual life to the destruction of national life.

No one type of language can ever evolve the intellectual powers properly, for it cannot deal with all the factors embodied in the original knowing powers. Language must be evolved in accordance with the same double-active principles of life and death which evolved the human knowing powers, their special ways and means in the human body and its mental economy.

If part of the original knowing powers of life are left undeveloped by thought and language, then intellectual powers cannot be fully and fairly evolved so as to serve civilization properly. The intellect becomes unduly limited and biased; the natural knowing powers are converted into fragmentary and biased knowledge and even into unnatural ignorance. Opinions, of unnatural ignorance born, become evil workers in civilized life and destroyers of individual integrity and of social order.

The original organic type of language must be preserved and kept in daily use by the side of the other acquired and analytic types; so that the mainstay of the original and natural knowing powers be preserved in the intellectualized mind, that the workings of natural causes may always be fully and fairly understood by the intellectualized mind, and that the thinking faculties may not deceive the living powers and destroy their virtues.

Added to these and similar statements of fact comes the warning: Do not put the intellectual tools of the mind (your acquired ideas) to any other but their own special uses. Improper use of intellectual tools results in dangerous delusions and hopeless confusion of ideas. It causes the thinking powers to destroy all virtues of life.

Guard especially against the abuse of the purposive and the reflective ways of thinking in positively defined words; it will weave a veil of word-knowledge whch the natural powers of sight cannot penetrate; and this veil will prevent you from ever looking out of your workshop of thought into the workshop of nature; it will leave you thinking without knowledge of fact; it will debar you from knowledge of natural causes, etc.

Remember that the consciousness of your living self is the mother-consciousness of the thinking faculties and powers, and that the thinking ego is at best only the free-agent of the living self and of the causes of life — of the genius of creation.

Do not let thought, the Free-agent, tyrannize over the best work of creation, the living self.

Do not let your thoughts ignore, brutalize or daemonize the realm of feelings.

The veil of miswoven words envelops the opinionated head, so that the thinking ego cannot see anything but its own ideas.

In order to explain the workings of natural causation we must begin by explaining their elementary activity.

The workings of elementary causes are simple, but in the course of development and evolution these workings become rather complicated. As the millions of things which we can see differ from each other, so differ the causes which produce them. Cause and effect are inseparably united; as the effect so the cause. Complicated effects have complicated causes within them. Before we come to understand the workings of causes in complex organic effects, we must make clear to ourselves the elementary workings of causes in simple non-organic but cosmic effects. The most interesting of these effects is the planetary system.

Science has made us familiar with the outer or phaenomenal interaction of things. It has taught us to know by the appearance of things how they will interact. It has taught us to judge facts by outer appearance. It has developed our sensible faculties of knowing nature, but it has not evolved either our inner character or our elementary knowing power. It has left both common sense and native reason out of all consideration. It has not told us how our senses or faculties of outer perception stand connected with the inner working of our nature, nor how the faculties of sense-perception have been evolved out of our elementary knowing powers. Not having done this, it has left the workings of natural causation out of consideration and unknown.

Outer and perceptible causes never act without the inner imperceptible causes; these so-called secondary, perceptible causes stand inseparably connected with both the elementary counter-tendencies and the determining character within them.

The eternal chain of natural causation is formed out of three strands; the phaenomenal, the "pheromenal" and the vital; the former being now well known; the two latter being practically unknown. (See illustration to "Trichotomy".)

The "pheromenal" and the vital strands in causation are the imperceptible causes, which deserve separate consideration, as dealing with life and its dead offal:

First — as the tendencies and capacities of organic character in the cyclic counter-procedures of life — in the procedures making for organic evolution, and in those making for the envelopment of seed-power.

Second — as the elementary counter-forces of the procedures of death, the one making for collection, and the other for dissipation, of substance.

The union of these two kinds of imperceptible causes with the perceptible interaction of things forms the one chain of natural causation in procedures of life and death.

Leaving the inner organic character of life out of consideration for the present, we have only the elementary counter-forces and their inanimate character to deal with. Dealing only with these, we cannot form a comprehensive idea of causation, but we can make clear to ourselves the workings of causes in procedures of death, such as are active in the development of planetary systems; we can take, at least, a merely dynamic aspect of the sidereal process; and we can also come somewhere near taking a chemical aspect of the world-process; for chemistry is largely a non-vital aspect; — organic chemistry being little more than an ambitious designation.

In leaving the highly evolved organic character out of consideration for the present, we can of course only deal with the elementary workings of nature. We can only lay a foundation for a more comprehensive knowledge of the world-process.

THREE ASPECTS OF THE WORLD-PROCESS.

In order to make the world-process as a whole clear to ourselves, by means of our analytical language, categorical terms of statical meaning, and by our fragmentary way of looking at things, we will have to take three different views of the subject; we will have to analyze the process into its undercurrents, into its phaenomena and into the union of the two, and in doing this we will have to remember that these three separate views are only pictures of thought, drawn for the purpose of elucidating the entire process to our living self — to the living consciousness in our mind — for it is the living consciousness of mind, and not its thinking consciousness alone, which will enable us to comprehend the process thoroughly.

To make this analysis we will do well to follow the precepts of antiquity, for they will put us in touch with the meaning of ancient vestiges, which throw much light on the needs of civilization, and thereby open the way of our deriving benefit from improved knowledge.

Analyzing the world-process by three different aspects, we will have:

First: the phaenomenal or surface aspect, as science would take it, if it gave the subject any comprehensive or truly synthetic thought.

Second: We have the "pheromenal" aspect of elementary undercurrents of existence, as Fu-hsi, Chu-hi and Herakleitos took it.

Third: We have the comprehensive aspect, which connects "pheromena" with phaenomena — undercurrents of nature's mobility and motivity with the apparent formation and interaction of things. It is this comprehensive aspect which the sibylline school made the standard in all so-called sacred writings.

Taking the first aspect, we may consider the process of nature a fermenting process, and we may attempt its partial explanation by explaining the different phaenomena of fermentation.

Taking the second aspect, we may consider the world-process and especially its sidereal phases, as electromagnetic, and the planetary system as a huge dynamo; for sun and planets interact much as do the active parts of the dynamo.

Taking the third aspect, we must draw upon the two former and consider the process in its organizing and seed-going procedures, equipped with sewerage system in solar and planetary activity.

Before attempting to take any one of these three aspects, it may be well to consider those ancient ideas which prevailed during the highest stages of mental activity, and which the sibylline school embraced in sacred writings.

Our theologians tell us, and our Bible-translators seem to say, that some God made the world-process, as a potter makes a pot. No such silly ideas are to be found in any works of sibylline character. These present theological ideas are vestiges of medieval ignorance; they originate in gross misinterpretation and misconception of the old-time works of thought, which vested its know-

ing powers in forgotten types of language — in organic types, which modern thinkers do not understand and cannot transpose into our grammatical type.

The world is neither hand-made nor thought-made; its activity is the result of character-determination in all existing substance.

"The world-process was not made by any Gods or men; it was always, and will always be, a procedure into life and out of life; a timely and duly adjusted ignition of the living glow of consciousness and a corresponding extinction of it," says Herakleitos, the latest exponent of the sibylline school.

THE UNIVERSAL AND INDIVIDUAL FACTORS IN THE WORLD-PROCESS, ACCORDING TO THE OLD-TIME KNOWLEDGE — THE NOW UNKNOWN UNIVERSAL AND INDIVIDUAL CHARACTERISTICS OF NATURE'S ACTIVITY.

Everything in nature is continuously changing. The sun does not always remain a sun; it burns out its substance. The planets do not always remain planets; they become suns in a new planetary system, as we will presently come to see.

Life is not always life; death, not always death. New species of life constantly make their appearance; old species become extinct. The rocks in the earth undergo metamorphic changes; they change character and form, as the earth continues in its destined course of development. All existing things move in the cyclic way of development and envelopment; they ascend and descend in steps of evolution and involution.

Organic evolution implies the involution of organic powers in seed. The development of some tendencies and capacities implies the envelopment of other tendencies and capacities in existing things. The production of one thing is the destruction of other things. The change of some natural tendencies and capacities into other natural tendencies and capacities proceeds continuously in unending cyclic modifications. As one thing turns up, the other thing turns down.

CYCLIC COUNTER-PROCEDURES.

All development has its counter-procedure in envelopment. As the tree develops its organic powers from its seeds, so it also envelops its organic powers in new seed-powers. This cyclic development and envelopment is true of all things that come and go in the process of nature, be they alive or dead; it is the universal counter-procedure of elementary tendencies and capacities, which will be further explained under the definition of metaboling and in the process of sun and planet making, as also in the evolution and involution of life's powers.

All powers of life are evolved in cyclic counter-procedures. All forces of death are also developed in cyclic counter-procedures, but all these forces originate in offal of life. Whatever does not move in the cyclic ways of life moves in the cyclic ways of life's sewerage, as things gone dead, to be disinfected and eventually restored to the order of life.

There is nothing forever stationary in the process of nature; nor is there anything that proceeds in any other way but in the cyclic counter-procedures of life, or in those of death; and the counter-procedures of death run crosswise to the counter-procedures of life.

Counter-procedures we must make thoroughly clear to ourselves. in order to understand how life and death interact, how and why the change takes place from one to the other. We will, however, see all this more clearly after explaining nature's way of dealing with life's sewerage in the sidereal process.

ALL EXISTING THINGS IN LIFE AND DEATH ARE BI-POLAR AND DOUBLE-ACTIVE.

Nature is continuously double-active in all her metamorphic changes. She produces opposite effects at opposite stages of her cyclic counter-procedures. That which produces fire today burns out its substance — dissipates it. The substance so dissipated is collected at some other place and gradually solidified in passing through denser and denser gaseous, liquid and solid states of aggregation. Thus, the substance which makes fire today, eventually returns into liquid and solid states, which can be and are again dissipated by fire.

The tendencies to dissipate and the tendencies to collect substance exist elsewhere; they are inseparably united, and they make everything bi-polar and double-active.

The predominance of one elementary tendency over the other causes all substance to move either toward dissipation or toward solidification in the byways of life, but in these byways only, for in the way of life these counter-tendencies are so balanced that neither one can predominate much over the other.

The way of life follows protoplastic conditions of substance, in which undue dissipation or undue solidification does not take place.

THE CROSSING POINTS.

The changeful dissipation and solidification of substance is due to character, developed in the crossing-points of counter-active tendencies and capacities.

Crossing-points develop character in inanimate substance, as well as in the way of life.

Crossing-points characterize all of nature's activity, from the minutest details to the sidereal process. The mind, which can grasp the subject of crossing-points, can form gisty, character-ful judgments of natural causation in all its phases, physical, mental and intellectual. It can deal rationally with all affairs of life.

In crossing-points centers the knowledge of the world-process and of all sacred writings.

To the Fu-hsi school, crossing-points were known as the **Tai-kih**; to the Brahmins as the **Oum**; to the Zoroastrians as the **Honover**; to the Hebrews as the **Word**; to the Herakleiteans and the Christians as the **Logos**, etc., etc.

In crossing-points all knowledge of nature centers; from them all knowledge must be elucidated. The workings of crossing-points must be thoroughly understood, before the mind can claim a thorough knowledge of any one act of nature, as it is in itself. The elucidation of crossing-points we must defer for the time being. It is difficult to describe crossing-points in terms; it is easy to know them by illustrations. The North American crosses form the best illustrations extant. These I have elsewhere explained. (See illustration of the Celtic Cross and the Universal Kitchen in the Appendix).

For the present, it is enough to say that there is a determining character-power, active within all phaenomenal changes.

Not only the procedures of life, but also those of death, have a determining character.

The cyclic development of the forces of death proceeds in certain steps of aggregation and dissipation, just as the powers of life proceed in steps of organic evolution. Water, vapour, fire of life proceed in steps of organic evolution and involution. Water, vapour, fire and all solid substances form in certain ways, and in these ways only; and it is the character of death which determines this certainty in procedures and formation.

CHARACTER-FOCI AND CHARACTER-GERMS

Antiquity, meaning the sibylline-school, understood the character-work of death as well as that of life. It knew character as a germ-power in life, and as a focalizing force in death; it also knew that both are constantly interacting at the crossing-points of cyclic counter-procedures. It knew that the procedures of death cross-cut the procedures of life at all times; death moving toward extremes on either side of the way of life. It knew planetary and solar substances to be products of the forces of death by the side of the unending cycles of life. It knew fire, ether, air, water, earth, etc., to be products of the focalizing forces, active in the procedures of death. It knew that these focalizing forces determined the movements of dead substance, just as the living germs of cell-life determine the movements of organic tissue in plant, animal and man.

Antiquity comprehended the making of fire, water, air, earth, life, and even mind and thought, in its own ideas of a fermentation-process of different phases—phases determined by different character-centers. It distinguished the solar and planetary activity as two phases of one process — phases of diametrically opposed stages in the cyclic development of dead substance. It looked upon the body of the earth as a graveyard in the making, and upon that of the sun as a former, abandoned graveyard in way of restitution toward life. It knew that the burning sun had once been a planetary collection of life's offal — a graveyard in the making. It understood the siderial sewage-system of universal life. It knew how the byways of sewage development, its formation and restitution in planets and suns and otherwise, crossed the highways of life's evolution.

HINTS AT FACTS CONCERNING THE WORLD-PROCESS

Nature is an unending process (anathymiassis*) of living and dying.

Life is a digestion-process, controlled by multitudinous and changeful types of character-energy. This energy is inwardly and outwardly conscious and it divides itself into special faculties of knowing and doing.

Digestive energy works in the stuff of existence. It draws tendencies to conscious and vital energy out of some parts of the stuff of existence. It converts these tendencies in active capacities by vesting them into some other part of the existing stuff, giving it organic form, thereby producing phaenomena of life and of death.

Death is a fermentation process, which prepares the unconscious part of the stuff of existence, known as matter, for the work and nourishment of life.

The Genii of Creation, if vital energy may be thus personified, live in the digest-centers, as radio-active character-powers, surrounded by their specific respondent powers of adaptation (periechon*).

Digestion divides the tendencies to life and death, inherent in the stuff of existence, into four kinds of elementary character-energies; two of which act in world-wide and vitally energetic ways of invisible substance; the two others act in the local and unconscious ways of matter.

Life is a compound of universal and individual energies, working continuously and temporarily; it is the result of unifying the universally and continuously working energies with the local and temporarily working energies. Ingestive and egestive breathing is a mind-making and continuous process which connects individual life with world-wide tendencies to vitality. Assimilative and elimination digestion of material food is a body-making and temporary process which connects all individual life with the workings of death.

Every ferment and every digest-center is a thing in itself; it is a **Self** which stands in interactive and counter-active relation to the world-wide **Not-self.**

Life is organic in its very origin. The simplest cell-form of life is an organic community of harmoniously interactive digest-centers (Sphairos, Deipnon, Koinonias*).

Centers of fermentation and digestion are links which the radio-active and continuously working character-energy forms into an eternal chain of causation thereby making one process of all existing factors in the workings of life and death.

Our solar system is a small but typical unit of activity in the one process of existence; it is a cell or sphairos in the body of the universe.

All energies are indivisibly double-active; all counter-rotate about and through a radio-active focus. Universal energies counter-rotate about the world-axis, and they control the individual energies which counter-rotate about their own local axis.

(Axial adjustment and atom.)*

*See Glossary in separate volume.

Antiquity looked upon the sewerage-system as a double-active process, which first disinfects the offal of life at the pole of its origin and collection, and secondly, burns it up for restoration to life, after this pole has assumed an opposite character, that is, has metaboled from a positive, collecting pole into a negative, distributing pole or center. In other words, the offal of life, which collects itself mainly about the positively magnetic poles of nature's activity, such as are the planets, is there disinfected by diapheromenal currents, invisibly active in the electromagnetic fields, which surround all planets, as they do this earth. Being disinfected, it again assumes protoplastic character in part; it becomes subject to the workings of living germ-centers, and re-enters the order of life, taking part in the growth of new life. But it does this only in part. The greater part of life's offal becomes solidified and even petrified, and thus builds up the inanimate body of the earth, gradually, stratum by stratum. This increasing of the body of the earth, and in fact, of planets in general, does not indefinitely continue. The wet ferment-centers, which are active in planetary bodies, change into dry ferment-centers. The planets go up in smoke; they become suns in new planetary systems, for reasons to be later explained. Our earth is not getting colder, as speculative science imagines; it is getting hotter, and so is every other existing planet. The offal of life, wherever it may collect itself about the body of the earth, contains moist and cold ferment-centers, making for water and solidification, but through these collected masses pass the dry and hot disinfecting diapheromenal currents at all times, and if the solidification, due to the cold ferment-centers, does not take place, then the hot ferment-centers in the diapheromenal currents come to predominate, and spontaneous combustion sets in.

All dead substance, originating in waste of life, moves either towards solidification and petrifaction or towards combustion, be it in small collections of such substance on the surface of the earth, or be it in planetary bodies.

The earth, and in fact, all planets, are collectors of life's offal; they are virtually immense graveyards, in which the moist ferment-germs predominate. Eventually these planetary graveyards go into spontaneous combustion, for the wet ferment-germs within

them change or metabole gradually into dry ferment-germs. The same universal law of disinfecting and burning up of sewerage applies to planets, as well as to any great accumulation of moist refuse of life.

Antiquity distinguished the process of disinfection from that of dissipation, as being due to character-germs of opposite polarity in the universal fermentation-process. To its understanding of Fact, the planetary disinfection of the waste of life was a less effective process of restoration than the solar combustion-process; and being thus less effective, it served life in a minor way; i. e., the slow-working germ-power in the disinfected planetary substance was understood to mainly produce bodily tissue, while the more rapidly working germ-power in the drier substance coming from the sun was presumed or known to mainly produce the character or mind-power and the seed-energy which inhabit the bodily tissue.

The great cults of antiquity assumed or knew that the bodily consciousness and its faculties of sense ascended into human life from the earth, through the positively collective pole in the digestion-process, while the self-conscious powers of mind descended from solar power and substance, entering life through the negatively collective pole of digestion.

The now unknown bi-polarity of digestive powers was no secret to antiquity. It distinguished between body- and mind-making in the universal fermentation or digestion process. It distinguished the making of organic powers from the making of seed-energy. It looked upon these two as products of different polarity in the same atomic character-power, which assimilates and eliminates substance in the process of digestion. This distinction, which antiquity made between organic body-power and seed-energy, found its way, through the Greek words **soma** and **psyche**, into modern languages, as something like the contradictory ideas of body and spirit. Greek antiquity, however, previous to the days of Anaxagoras, knew nothing of non-substantial spirit or soul-ideas. It entertained no such contradictory conceptions as the modern ideas of force and matter. It knew force only as a characteristic of substance, and not as an entity existing independently of matter, as it is now conceived to be. It only knew substantial, counter-active tendencies, capacities, forces, power and character, as active causes in the unseen world. Substance, to it, meant an extremely rarefied

state of active matter, i. e., matter in its extreme state of dissolution, made so by the forces inherent in it and inseparable from it.

To explain: If all the stuff that the world is made of were reduced to a homogeneous or uniform state of consistency, it would be nebulous or protoplastic, but as the world is not one of nebula, but one of collection and solidification of matter, in fixed stars, suns, planets, etc., on the one hand, so, on the other hand, is it one of extremely rarefied states of matter, in which the distributive forces so predominate that it approaches the state of the merely active and non-material. There is, however, nothing non-material in the world. Existence means active substance. There is no inactive substance, nor is there activity without substance. Non-substantial spirits, souls, Gods or forces are dream-products of the thinking ego, by words deluded.

The world-process may be ideally divided into two great processes, the process of life and the process of sewerage. The Herakleiteans so divided the world-process; to them, life made sewerage and sewerage made life.

There is nothing in existence which is not either life or sewerage.

The rocks in the earth are petrified sewerage; the archaean or so-called azoic rocks not excepted. All the fixed stars and our sun, as well as the planets, are collected masses of life's sewerage. The former, being in a state of rapid decomposition by fire, re-distribute their collected substance toward planetary abodes of life, where it assumes protoplastic and bioplastic character. The latter are still collecting sewerage-substance and waste from the life upon and about them.

The process of life is a digestion-process; the sewerage-process, which may be called the process of death, since it deals only with inanimate substance, is a fermentation-process.

The difference in these two processes is only a difference in atomic activity—in active character-centers.

The development and evolution of character-centers determine the procedures of life and of death.

The procedures of death run crosswise the procedures of life.

The chain of natural causation, making for life and death, divides itself in four directions, in every part, at every moment. Two directions make for sewerage, two for life; and each movement in these four directions has its simultaneous counter-movement.

Thus, looking at the chain of natural causation from within, we have to deal with eight simultaneous changes in every act of nature. But these eight inner changes are not all that there is to an act of nature; there are outer effects inseparably connected with nature's inner activity; and these outer effects also need immediate consideration, for they take place simultaneously with inner effects. Every inner impulse in the process of nature has its outer effect; the within and without act and react upon each other, and all actions and reactions have their counter-actions.

Thus nature, viewed as a process, presents itself to the mind in many changeful features and phases of causation, all of which are connected, and many of which occur at the same moment and require simultaneous consideration. In this multiplicity of simultaneous changes originates our great difficulty of fairly representing the world-process by analytic language and terms of statical meaning. While we depict this or that phase in the process of nature, we necessarily have to neglect any number of other phases and changes, which are taking place at the same time.

That which appears changeless without is only apparently so. All things interact with their environment at all times, and interacting, all are undergoing changes within. The constant change of temperature in things, for instance, is an indication of outer and inner activity and changefulness. The changes in the petrified sewerage-substance of the earth follow the same fundamental principles, and present the same complexity to proper mental analysis and verbal representation.

When powder explodes, when coal burns, when electric sparks form, or even when the magnetic needle points to the pole, eight simultaneous changes take place in the substance of those things, all of which require attention and explanation, in order to make clear the why and how these acts can occur. And besides, a corresponding number of outer changes, simultaneous changes in the environment, also take place, and these also require simultaneous attention, for they belong to the same link in the chain of natural causation.

And again: Every link in that chain stands connected with every other link, by reason of the all-underlying principles of nature's activity in life or in death.

Thus, many changes demand our attention in any and every act of nature, even if the act does not show any phaenomenal change of substance, as in the case of the magnetic needle.

The many simultaneous changes which take place in the chain of natural causation, the changes which all acts have in common, must be known explicitly before the mind can claim to have a comprehensive or concrete knowledge of Fact. Abstract views of Fact are easily taken, but they are delusive; they lack the fullness of truth.

In order to tell the truth about nature's activity, we must connect our statements of Fact with

the workings of fundamental principles in life and death.

These principles extend themselves throughout all of nature's activity; they characterize every act. The workings of these principles we must understand, and to them we must adhere in thought, in order to be truthful, and in act, in order to be characterful.

We must avoid losing ourselves in abstractions and ideal unrealities, and we can only do this by adhering to fundamental principles.

We must not take piecemeal views of nature's work, without realizing that fragmentary aspects of Fact can never be full and fair representations of nature's activity.

Above all things, we must not separate the activity of life from the activity of death, in our way of thinking.

We must distinguish between the principles of life and the principles of death, in order to give any of our abstract ideas a proper hold on causation.

In discussing nature's sewerage-work, we must give it proper connection with the workings of life, which produce the sewerage.

We cannot discuss the procedures of death apart from the procedures of life, without taking abstract, one-sided, fragmentary and delusive views of nature's work.

We should not consider the procedures of death as apart from the procedures of life, for both interact constantly; both meet to part at the crossing-point in atomic activity. In these atomic crossing-points all inner changes take place; all fermentation or digestion is determined there, and all outer changes result from the inner atomic activity.

There is constant action and reaction, and simultaneous counter-action in the points where the procedures of life cross the procedures of death. There is mobility and motivity everywhere in nature, even in things stone-dead. The oldest rocks of the earth are being penetrated by something that causes them to change

without and within; not only to change temperature, but to change character and form. Changes of character and form in primary rock-formation, produced by penetration of something which we can know, cause the earth to quake, as petrified sewerage-substance within it labors to return to life. There is nothing so dead in the nature of things that the sewerage-fermentation cannot return it to the order of life. There is nothing detachable from the process of life and of death, excepting, perhaps, the fixed, ideal pictures which the thinking ego produces in its mistaken effort to represent nature's activity by abstract ways and means. And these fixed, ideal pictures are not realities; they are bogus representations and misrepresentations of reality; they are abstract ideas of our deluded realists.

If we understood the aphonic sign-language, we might present the many simultaneous changes as a whole, through the eye to the mind, as did the ancient thinkers. But since this language is totally lost to modern learning, we have to proceed by giving our analytic words more comprehensive meaning than they have at present, and we have to borrow, to begin with, at least two or three words from the Herakleiteans, to depict the elementary motivity in the unseen world:

First, the word **pheromena,** to depict the invisible undercurrents in the process of nature, which cause the collection of substance about the centers of gravitation, as in the formation of planets, and which penetrate all collected matter, in all states of its aggregation. Of these undercurrents, modern thought has but a very indefinite knowledge; it knows electric and magnetic fields; it knows magnetic power as a collective force, and electricity as a penetrative force, but it does not know the connection between these two kinds of phaenomena, nor does it know the connection of both with fundamental principles of nature's activity. Not knowing this connection, it does not know either magnetism or electricity in the "how" or "why" of their actions, reactions and counteractions, nor in their connection with the work of life and of sewerage—of inanimate matter.

The knowledge of **pheromena** or undercurrents is essential to the understanding of nature's activity. Where there is the greatest collection of inanimate matter, as in planetary bodies, there is also the greatest rarefaction of substance, and this rarefied substance does important work. It does its work in strict adher-

ence to the principles of life and of death. It disinfects sewerage; it dissipates it; it restores it to protoplastic conditions and to life. It generates the elementary forms of life, and even furnishes the motivity in organic development up to a high stage of evolution, throughout the vegetable kingdom, and in the animal world up to the stage when self-conscious character becomes a determining power in evolution.

The **pheromena** are not merely magnetic and electric; they have within them powers of life and elementary tendencies and capacities of consciousness. They are important factors in the unseen world. In them are to be found the unseen causes of light and of warmth, of all radiating and circling movements within substance, which give form and color to life, and motivity and character to all ferment-germs, to all digestive centers.

Second, the word **diapheromenon**: an analytic, one-sided aspect of **pheromena**, denoting the tendency and capacity of substance, in its most rarefied state of existence, to penetrate in straight-line radiation all denser matter, thereby sustaining the atomic activity in the universal fermentation-process, and especially in the disinfection of sewerage-substance and in the eventual dissipation of its aggregations. The modern idea of electricity comes somewhere near the old-time idea of **diapheromenon**; it indicates a small part of its activity—the penetrating part—but the modern conception of electricity concerns only phaenomena, and not the why and how of its origin nor the character-power to which it is allied.

Third, the word **sympheromenon**, which, as the inseparable counterpart of the **diapheromenon**, surrounds and nourishes all atomic activity by its circling procedures,—nourishes it in the universal fermentation-process, and collects sewerage-substance. The old-time idea of **sympheromenon** has something in common with the modern idea of magnetism, but it differs from it in the same way as does the modern idea of electricity differ from the old-time idea of **diapheromenon**.

These three Greek words are further explained, together with others needed for the explanation of the universal fermentation-process, in a later chapter.

Besides these three Greek words, we will have to modify the meaning of some of our own words, and compound them in an unusual way, in order to proceed temporarily with the subject of

changefulness in the world-process, and with the complicated interaction of character-centers in producing life and its waste and in restoring or regenerating waste to life.

We will have to modify our **ideas of life and of death,** of the conscious and unconscious causes in nature's activity; and above all things, we will have to make some sort of a temporary

analysis of mind,

in order to make clear to ourselves the changefulness of at least the principal factors, active within it, and the connection between **consciousness and unconsciousness.**

IDEAS OF LIFE AND OF DEATH

All forms of life and of death are products of character-centers, be they ferment-germs or digestive foci; and all character-centers are bi-polar and double-active; all are compounds of counter-active substance engaged in the process of digestion and fermentation and in other fundamental changes; all divide themselves constantly. Part of that which is life goes deathward, and part of that which is dead and enters life is assimilated and reanimated. This change from life to death, from death to life, we must bear in mind. We should know it in all its many phases. We should not shirk the difficult study of the extended explanations, which analytic language makes necessary. The word-pictures, which analytic thought can produce, can never be very good; they can only be hints at Fact, and the student must supply the verbal deficiencies by his own common-sense digestion and by his reasonable re-digestion of the evidences. Even the thinkers of antiquity, who understood the subject of fermentation, digestion and constant self-division, seem to have been unable to give a comprehensive word-picture of it.

CONSCIOUSNESS AND UNCONSCIOUSNESS

Wherever there is substantial existence, and it extends throughout the universe, there are tendencies to consciousness. Wherever there is atomic activity, working either in the procedures of life or in its sewerage as ferment-germs, there takes place a change in the tendencies and capacities of consciousness. As the sewerage-work leads away from the way of life, so diminish the tendencies of consciousness. As it returns toward the way of life, so do these tendencies return toward active capacities of conscious-

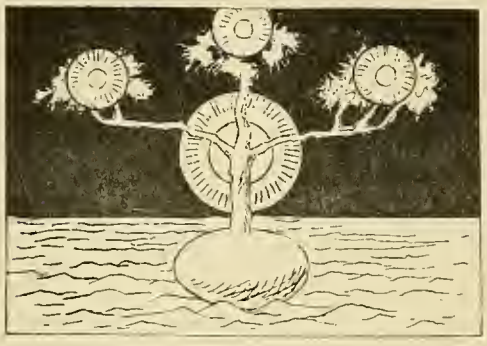
ness. In the fiery or watery fermentation of sewerage-substance, there are no apparent tendencies of consciousness active, but those tendencies are there, as we will see later. Nor do the tendencies to consciousness rise into active capacities in plant-life. Plant-life is only a sewerage-regenerator, and it is but one step higher than the formation of rock-crystals in the workings of nature's elementary energies. These energies cannot even be called actively conscious in the elementary formation of animal life. No distinct line between unconscious death and conscious life, or between plant and animal life can be drawn. In the process of nature, all are merged into one changeful compound. The first change from tendencies to consciousness into active capacities of consciousness which is notable, occurs probably in the second stage of animal life, and manifests itself as a consciousness of digestion, emanating from atomic digest-centers. Simultaneously with this rise of consciousness, or shortly thereafter, appears the first indication of outer sensibilities, making for adaptation to environment.

Thus life in the beginning is apparently an automatic, unconscious product of nature's elementary energies; how and why remains to be proven.

Special consciousness is evolved as the organs of the animal body are evolved, always under the pressure of fundamental necessity. Moving upward in the steps of organic evolution, the consciousness of life eventually evolves individual self-consciousness, and this self-consciousness, in the cyclic recurrences of evolution, rising and sinking, eventually reaches the height of free-agency character in man. And if the myth-writers tell the truth, it has, at one time at least, reached a degree of perfection in the mythical King Solomon. Historic evidences of perfectly evolved self-con-consciousness are totally absent. Man never yet seems to have been thoroughly a free-agent of the causes of creation. However, being a product of creation, his mind probably contained at one time as thorough self-conscious powers as did the causes of creation. The effect must contain all that which the causes have put into it; but the effect does not always hold to the height of evolution; it recedes from that height, and the self-consciousness of humanity seems to have so receded for many ages.

Long ages ago, sibylline thought, based upon the Fu-hsi school, had succeeded in making an analysis of mind, by which it came to know the imperceptible causes of nature's activity. This analysis is too complicated for our present purpose; it requires too much explanation, but we can borrow enough from it to form a key to the understanding of natural causation, and to lay a matter of fact foundation for the meaning of those words which we have to use in a sense extending beyond the narrow limits of dictionary definitions now given them, as for instance, the words "common sense," "native reason", "self-consciousness", "discernment", "evangelic", "apostolic", etc., etc.

In order to use any of the many forms of sibylline analysis of mind, we must begin with the sibylline idea of elementary consciousness.



A BRAHMANIC WORLD-EGG.

Illustration No. 3

This egg represents the original seed-energy of life, as a concentration of the living power in protoplastic substance, between planetary moisture and solar heat. From this germ-power unconsciously grows, first, a tree of vegetable life, in which the tendencies of consciousness are gradually ripening toward active capacities. The organizing character of the powers of life is depicted by a large double-circle, containing radiations, to indicate the diapheromenal sympheromenal counter-activity. This double-circle appears directly at the crossing-point, where the three branches of the tree leave the trunk, two of them making for Extent and one for Height. This last represents the third power, which carries along the REASON of advancing evolution. In these branches appear three minor double-circles, similar to the larger one, indicating the fullness of organic development and its threefold hold on the chain of causation. The large double-circle is understood to yield its energy to produce the three minor double-circles, and the three minor double-circles are understood to reproduce the larger double-circle.

The action and reaction between organizing energy and seed-energy, as depicted in the one large and three small circles of the above picture, does not go back to the original world-egg, floating on the waters, but yet the original world-egg, depicting the undercurrents of existence, sustains the organic and seed-going activity in the tree, as undercurrents always continue to sustain highly evolved life.

The ground-lines of the sibylline analysis, in short, are as follows: Consciousness is a universal tendency and an occasionally active capacity. Neither the collection or petrifaction of life's wasted substance, nor any slow or rapid fermentation of this substance, not even the burning up of it, ever destroys entirely the elementary and universal tendencies of consciousness, characteristic of life. These tendencies are indestructible; in the downward, death-going procedures of the world-process they are rendered dormant; they are converted into a latent state, to again become patent capacities when the cyclic procedures of sewerage-work return from the extreme poles of solidification or dissipation to protoplastic equilibrium.

There is a rising movement in the procedures of death, which brings sewerage-substance back toward the order of life from the remotest possibilities of death.

The indestructible tendencies of elementary consciousness were mythically depicted by the ancient Brahmins as Bram. We can probably facilitate the making of an analysis of mind by falling back upon the Brahmin version of the sibylline school, which deals with the subject in a picturesque way. Doing this, we may say:

Solar and planetary centers were conceived as the poles of death, in which one of the two elementary forces overbalanced the other. The restoration of balance between these forces produced the protoplastic substance, the nebulous or atmospheric conditions in which life can maintain itself, and in which consciousness eventually comes to the fore as a characteristic of animal life.

The equilibrium in the two counter-active forces (in the diapheromenal and sympheromenal forces) converts part of these forces into energies, approaching the character of life. The concentration of these energies in individual character-foci generates powers of life, in which the elementary tendencies of consciousness gradually ripen into active capacities, by evolution of higher powers in character-germs, in the cyclic risings and recedings. This concentration of energies in individual, atomic character-centers was mythically described as the formation of the "world-egg" in most of the ancient cults, for instance, the Tai-kih of the Chinese, the "egg of Brahma, the original digester", etc., etc. (See illustrations Nos. 3 and 8)

The concentration of elementary powers of life and its con-

sciousness in individual, atomic character-germs of life, under the pressure of necessity, makes for organic evolution, and this evolution causes the expenditure of individual energy or life-power, which is compensated for by the accompanying counter-action and the resulting reaction into seed-energy. Organic energy and seed-energy act and react by reason of latent counter-tendencies and capacities—by reason of bi-polarity. The why and how of this action and reaction antiquity understood thoroughly, and we will come to see it clearly when examining the workings of cell-life.

Illustration No. 4
THE BRAHMIN TRIMURTI, KNOWN AS BRAHMA, VISHNU AND SIVA.
after Moor's HINDU PANTHEON.

Archaeologists have called these three grotesque figures Gods and made them generally known as the Creator, Maintainer and Destroyer of the world. These and all other archaeological ideas we will have to lay aside, if we want to know the original meaning of the ideograms. There is a little truth in what archaeologists have told us about these so-called divinities, but whatever there is of truth in it is very delusive, and useless for the purpose of depicting an analysis of mind. The current knowledge of Brahmanic myth is based upon a very limited knowledge of the thoughts and intent embodied in the Vedas and the Upanishads, and that limited knowledge is not based upon any understanding of the world-process, which the authors of the Vedas made the foundation of their ethical or so-called religious system.

Brahma, Vishnu and Siva were not originally intended to represent any kind of God-ideas; they represented only the three principal factors in the character-power of human life, by language evolved and personified, in accordance with the prosopopeia-system of rhetoric. Our words Common Sense, Native Reason and Special Sense come a great deal nearer depicting these three principal knowing and doing powers in the human mind and in the civilizing work than do the words Creator, Maintainer and Destroyer.

No three words, however, in any language can describe the changefulness of the three principal factors of human character in the evolution of mind and of civilization. The triple powers of knowing and doing in human character undergo great changes; sometimes common sense, sometimes special sense and sometimes native reason comes to the fore as a determining power in the intellectualizing and civilizing movements.

The action and reaction between seed-energy and organic energy, under pressure of necessity, cause character to rise into height, that is, into greater and greater concentration of consciousness in the individual character-center. This rising produces a third power, between elementary concentration of organizing consciousness and elementary seed-energy. This third power carries along the reason for advancing evolution in the world-process. This carrying along eventually evolves the thinking and speaking powers of man, and reproduces a duplicate of the process of nature in the intellectual

All these changes call for extended and interwoven descriptions, which no three words like the above names or distinctions of creator, maintainer and destroyer can furnish. These words can only serve as titles or headings of the required descriptions.

The Trimurti-ideogram, as above represented, is properly called a "glyph" in distinction to symbol; it depicts by living character the same subject which is represented in a more abstract way by the pyramidal symbol, namely, the powers of human consciousness and self-consciousness, by virtue of language so evolved as to comprehend the workings of the fourfold principles of creative procedures in connection with the three strands of natural causation; the inner promptings, the outer interaction and the determining middle. These three phases of causation in nature, as in human life, act only in accordance with the principles of life and death, in accordance with creative principles. Creation implies destruction and maintenance; these three nouns indicate only the perceptible changes in the one process of existence. The maintenance of life is one changeful process of production and destruction. But this process, in its extension into human life and civilization, is caused and controlled by sensible, reasonable and characterful determinations, and hence common sense, native reason and special sense must be considered as the active causes of creation, maintenance and destruction in the intellectualizing and civilizing process, with which the Vedas deal; and hence also the Vedas know only threefold knowing and doing powers—a combination of Agni, Vayu and Surya, carrying out creative principles in the intellectualizing and civilizing endeavors of mankind.

All three figures in the Trimurti have mental powers to comprehend the threefoldness of natural causation; but the four-faced Brahma alone has an immediate, direct insight into the workings of creation, and an absolute knowledge of the fourfoldness of creative procedures. He personifies the evangelic genius, whose consciousness, emanating directly from the elementary energies of life, gives him absolute knowing powers of the principles of life and of death.

In the other two figures of the Trimurti, Vishnu and Siva, the consciousness of fourfold principles is not of immediate, elementary origin, as in the case of Brahma; it is not so much one of natural intelligence as of properly evolved intellect; it is further evolved by rightful use of language than is Brahma's.

The four arms on each of the three figures denote the characterful DOING POWER, which adheres to the fundamental principles of creation—of life and of death,—although it may no longer have any immediate insight into the fundamental workings of creation, it still adheres to the principles governing these workings; it adheres to them by virtue of intellectual powers.

This Trimurti-ideogram is here produced only to draw the reader's attention to the fact that the early sibylline thinkers made the consciousness of fourfold principles the foundation of knowing and doing powers in their mental analysis; and they made the consciousness of threefoldness in causation something like an intellectual superstructure, which underwent great changes in the evolution of intellectuality and of civilization, as told in the stories of Vishnu and Siva.

The fourfold principles of creation in the Old Testament appear as the J. H. V. H., which theological error has personified and misnamed Jehovah.

process of the human mind. This intellectual process makes the process of civilization possible.

These are the three processes of the sibylline school, personified in the Trimurti of the Brahmins, or by the three angels of Abraham in the Hebrew myth, or by the tri-unity in our own religion. (See the illustration of the Trimurti. No. 4)

This subject needs much elucidation, which I have given it in the "God Sham". Here we need only enough explanation to give our thinking powers a hold on the changefulness in the world-process, and to extend the meanings of such words as "common sense", "special sense", "native reason", etc., beyond the boundaries of dictionary definitions.

Drawing on Brahmanic myth for sibylline analysis of mind,

Illustration No. 5

BRAHMA, THE ORIGINAL WORLD-DIGESTER, WHOM SOME ARCHAEOLOGISTS, WITH DOUBTFUL CORRECTNESS, HAVE CALLED HARANGUERBEHAH, WHO FIRST EMBODIED CONSCIOUSNESS IN LANGUAGE, ACCORDING TO CREATIVE PRINCIPLES.

The changefulness of the Brahma-character illustrates the fact that analysis of mind cannot be a statical aspect of Fact, but must be a living picture of the evolution and involution of the human knowing powers. The sibylline school has furnished many such pictures in the so-called sacred writings, of which the Vedas are a branch. These writings are next to unintelligible in their modern translations, but the ancient commentaries, in connection with iconography, throw sufficient light on the subject, so that we can here use it to illustrate the workings of mind analytically. The evolution of the human mind divides itself naturally into two cycles, the one produced under the workings of Spoken Thought, and the other under the workings of Speaking Thought, language being the evolver of the elementary knowing powers of man.

For explanation of Spoken and Speaking Thought, see the ancient American ideogram, Illustration No. 8, in "Introduction to Errors of Thought."

In the Brahmin cult, Sanskrit represents the character of expression by Spoken Thought, and Prakrit that of Speaking Thought, the difference being that of organic and comprehensive types of language, as opposed to analytic and grammatical types.

Illustrations 5. 6. 7. represent the gradual evolution from elementary common sense to special sense and to special reasoning powers, generated by Spoken Thought; all depicted as personifications of Brahma.

Brahma must not be conceived as an actually living person, but only as a character-power, active in the human mind at one stage in the evolution of its knowing powers, and depicted by a figure of speech, formed in accordance with the prosopopeia-system of rhetoric.

its workings and evolution, we have to deal in rather an uncommon way with the subject, yet that way may bring us nearer our aim than dealing with it in analytic and scientific terms. Pictures impress themselves on the mind more forcibly than words, and they are also more comprehensive.

Brahma, alone, as apart from Vishnu and Siva, is a threefold personification of deified common sense, conceived as gradually evolving special sense and special reasoning powers. He first evolves special powers of knowing out of his elementary knowing powers, and then also special reasoning powers in the cyclic procedures of evolution. His reign is the reign of **spoken thought**, and it ends when **speaking thought** comes to make intellectual use of language and assumes full control of civilization; then the intellectualized special sense of Siva and the intellectualized native reason of Vishnu alternate in the regime of mind and of civilization.

This conception of Brahmanic faith may throw a little preliminary light into the darkness of the unseen world, and may help us to direct the attention of thought toward the active, atomic character-germs in the world-process, for all sibylline personifications and deifications deal with the changefulness in active character-germs, and their connection with the visible effects produced by these germs, but never with any effects apart from the character-powers which cause them.

The sibylline school personified the active factors in the human knowing and doing powers, beginning with the personification of character-germs, and following up the evolution of these germs by stories illustrative of the career of their personifications.

All personifications which occur in sacred writings of sibylline origin, be they those of Gods, heroes, devils, angels or men, represent character-germs and character-powers, active in the human mind at the various cycles of its evolution and involution, always under the influence of language. The sibylline school knew no Gods which ante-dated the advent of language, or which were not actually active in the human mind, as evolvers of its knowing and doing powers and its free-agency character. It knew that all the apparent changefulness in nature, man and civilization is based upon the invisible changes which take place in the activity of character-germs. As all life is a product of the digesting powers in character-centers, so is all human knowledge such a product. The mind digests evidences, observations and experiences, as the stomach digests food. Digestion is the foundation of the process of living, therefore is Brahma originally represented as the world-digester, eating up and digesting everything, assimilating that which supports the order of life and eliminating that which has no fitness of survival—which lacks the character-strength of life.

Illustration No. 5 represents the character-germ to mind-making, as in the first stage of common-sense digestion. It shows Brahma as a human figure, in form of an egg, representative of seed-energy, taking his toe into his mouth, to denote that he feeds his mind so as to arrive at an understanding of the creative principles of procedure, and to give his mind a sure, conscious footing in natural causation. In so feeding the mind, he causes the first light of consciousness to radiate from it, to enlighten the thinking world. This first light is a one-sided light, as may be seen in the cut. It is generated by the use of organic language, which has its germ in the word "Oum," as explained in the Upanishads.

To sibylline thought, the sun is always a sewerage-burner, and the earth always a sewerage-collector. To the Herakleiteans, the ocean was the cesspool of earthy life, the exhalations of which were figuratively said to nourish the life of sun and fixed stars, meaning that the sewerage collected by the earth stood connected with the sewerage-substance burning in the sun or elsewhere; or that sun

Illustration No. 6

BRAHMA AS HIRANYA-GARBA, THE ESTABLISHER OF THE GOLDEN RULE OR THE RECIPROCAL PRINCIPLES OF LIFE AND DEATH IN INTELLECTUAL EVOLUTION; AND SAKTI, HIS COUNTERPART, THE MOTHER-CONSCIOUSNESS OF THE REASON OF LIVING AND DYING.

Illustration No. 6 represents the second stage of character-evolution—the special-sense stage—in the personification of Brahma by the side of Sakti. The Sakti-character is the counterpart of the Brahma-character, that is, it was originally the subservient tendency in the dominant capacity of common sense; it was a semi-cycle, or, mythically speaking, a rib in the body of common sense. As common sense evolved or metamorphosed into special sense, so did it expend part of its dominant capacity, and so did its subservient tendency grow toward an actual capacity, in accordance with the old-time conception of "metaboling" in the duality of all character-power. The word "metaboling" refers to a certain change in the bi-polarity of character. This change will be explained hereafter in the activity of cell-life. Suffice it here to say that all action entails expense of the acting energy, and renders dominant capacities gradually subservient to counterparts. Counterparts are the inseparable halves in the bi-polarity and double-activity of character, character being composed of diapheromenal and sympheromenal tendencies, the metaboling sway of which brings about certain changes in digestive functions of elementary cell-life and in the development and evolution of character. Counter-action accompanies every active capacity in life and mind, as well as all reactions, and brings to the fore the subservient tendency of character, so that it becomes a dominant capacity, when the originally active capacity has expended its power and sinks into subservience, i. e., becomes a subservient tendency.

The above illustration shows this inevitable change in its half-way stage of development; it shows the Brahma-capacity as only half expended in the special-sense evolution, and the Sakti-capacity as only half evolved; the two in the position of initiative and referendum, but still in one nest, perched, however, above the second world-egg, to indicate the rising above animal powers of life.

The aureole, in form of a Jacob's ladder, above the head of Sakti, indicates that her referendum to Brahma's initiative is beginning to evolve special reasoning powers.

and planets interact and react as two extreme poles in the same sewerage-system, crosswise through which moves the way of life, up and down the steps of evolution, along protoplastic conditions.

This "crosswise" we must impress upon our minds, for when we come to the intellectual control of civilization, we will see how thinking crosswise the chain of natural causation destroys the work of civilization and makes sewerage of that which has fitness of survival.

We must also bear in mind that the collective or sympheromenal preponderance, at the planetary pole of sewerage-making, does not destroy the elementary tendencies of consciousness, nor does solar fire, at the other pole, destroy it. There is nothing so dead in matter, wherever it occur in the universe, that it may not re-enter the way of life and of consciousness. The rapid and the slow fermentation process, on either side of the way of life, constantly and

Illustration No. 7

THE GENIUS OF BRAHMA, METAMORPHOSED INTO THAT OF PRAJAPATI, THE DETERMINING POWER WHICH ENABLES THE MIND TO JUDGE GOOD AND EVIL IN ACCORDANCE WITH PRINCIPLES OF LIFE AND OF DEATH.

Illustration No. 7 shows the third stage in the changefulness of the Brahma-character. He appears here in the female form of Prajapati, an approach to the Maia form, which suggests that his character is approaching a stage of development where it becomes subject to delusions, arising in the advancing use of analytic and less comprehensive language. The advance in analytic use of language is indicated by the three streaks of light, which issue from the mouth of Prajapati. The streak in the middle is making for reasonableness, as indicated by the two figures to which the streaks lead as a mark of inspiration. The two lateral streaks make for hide-bound word-knowledge on the one side, and for contradictory opinions on the other.

everywhere make for the restoration of sewerage-substance to protoplastic character, in which the digestive character-germs may take hold and proceed in the way of life.

And we must further bear in mind that elementary substance, in rarefied conditions, acts at all times both diapheromenally and sympheromenally, as undercurrents in all things of life or death. Substance, in extremely rarefied form, such as in warmth, light, electricity, magnetism, etc., is always active in the undercurrents. It affects all states of aggregation of matter; in rocks, in water, in air, in ether, etc.

The human mind is always a compound of diapheromenally and sympheromenally active consciousness, and it is always controlled by a double-active character, which has diapheromenal and sympheromenal tendencies and capacities. The human character can and does make for special organic development in civilization; it can and does make for development of seed-energy; it can and does aspire to carry along the work of evolution; that is, the character-power in man, as well as in all things, can and does act in three directions, best depicted by the simple and ancient ideas: **organic extent, depth of seed-energy** and **height of evolution.**

The world-process is not only a process of life and of sewerage-making, but its life and sewerage procedures extend themselves from the elementary process of nature, which generates animal life, into the mental process of **spoken** and of **speaking thought,** and through this extension, into the process of civilization.

Thus the world-process is a threefold process, and to comprehend its workings we must keep track of cyclic counter-procedures of character-germs in the way of development and evolution, from the most elementary states of existence to those of free-agency determination.

There is a fourth stage in the changefulness of the Brahma-character, known as Brahma Tchekr, the androgenous Brahma, which depicts the final division of character by joining one half of Brahma to one half of Maia. This Brahma-conception illustrates the division of mental power in the course of intellectual evolution, as resulting from the inroads which Prakrit makes upon Sanskrit, i. e., which the prosaic, grammatical, scientific type of language makes upon poetically organic and figurative types of language.

The type of language which started the development of the Brahma-character was Sanskrit, the character-evolving type, while the type of language which developed the Maia-character was Prakrit, the special sense and business type, which develops adaptability to environment, that is, outer faculties of mind. This profane Prakrit-type of language finally affects the character of Brahma. All this I have more fully explained in the illustrations to the God Sham.

The early Herakleiteans, whose knowledge of elementary facts of existence conformed strictly to that of the sibylline school, considered sympheromenal consciousness mainly as a body or tissue-builder—a shell-builder—a developer of special sense and of special reason; and diapheromenal consciousness they considered mainly as a developer of seed-energy. But their conception included a third power, a power due to the balanced union of diapheromenal and sympheromenal consciousness. This third power was the evolver of self-conscious character—the true demiurge in the process of nature—the **logos dioikon**—the active, to-order-setting **word** in the process of civilization. Thus antiquity not only knew two elements of nature's activity, but it knew that these two elements at times formed a third elementary power—the self-conscious character. In their alternating sway of predominance and subservience the one elementary power mainly built the body; the other elementary power mainly built the seed-energy; but in their balanced union these two powers evolved the double-active, self-conscious character. Thus antiquity knew an organic, body-building power and an organic seed-energy, and it also knew a self-conscious character-power, and it distinguished these as building into organic **extent**, into the **depth** of seed-life and into the **height** of organic character.

THE ORIGINAL GOD-CONSCIOUSNESS AND THE LATER GOD-IDEAS.

The sibylline school, from which the Brahmanic cult emanated, never recognized any world-making Gods. It looked upon the process of nature as everlastingly automatic in its course of evolution, up to the origin of man's speaking powers. As causes of nature's motivity and mobility, it knew only universal tendencies and capacities, and individual character-powers, which proceeded automatically, but in accordance with principles of life and of death. It knew cosmic order, plant and animal life to be products of universal tendencies and capacities and of individual character-powers, acting of necessity in accordance with the everlasting principles of creation. It knew that the Genius of Language made these principles knowable to the human mind; and knowing this, it made the so-called WORD, VERBUM, LOGOS, OUM, etc., etc., representative of the Genius of Creation.

The sibylline school at no time personified the CREATIVE PRINCIPLES; it only personified the various character-powers which had evolved the faculties of language in the human mind, and perhaps also some character-powers which the use of organic language had evolved. To sibylline thought, the original God-consciousness was the consciousness of CREATIVE PRINCIPLES, active in the human mind, as well as everywhere in the procedures of life and of death.

The personification-process, the prosopopeia-system of rhetoric, eventually led to misconceptions of the original God-consciousness. It ignored the non-personifiable creative principles in the procedures of life and death, and it generated all kinds of God-ideas and hero-ideas, to which the half-baked intellects attributed individual existence.

The sibylline school, however, knew no Gods which were not either mental powers, evolving the organs of language, or character-powers, by organic language evolved.

The three words, Height, Depth and Extent, we should always remember.

In the Old Testament, Cain is the body-builder, going into EXTENT, Jacob the representative of seed-energy in DEPTH, and Solomon the representative of the fully evolved, self-conscious character in HEIGHT. These three characters in their union form a trichotomy. We will return to this subject in the chapter on the third element.

All these factors, active in the way of life, antiquity connected with the sewerage-idea. It knew no life which was not going to waste and making offal. It knew that the waste of life at all times moved away from and toward the way of life, on both sides of it, on the planetary and solar sides. It knew that life gives and takes away something from planetary substance, and that it takes something from solar substance and returns something to it.

It knew sun and planet to stand as two connected poles in nature's sewerage-system. Between the poles it knew life to move in its cyclic way, always from a seed-germ toward organic development, and back from organic development toward a seed-germ. In so moving, life was known to draw substance from both poles, and return substance toward both poles. The substance drawn from the planetary pole antiquity considered as mainly making for organic growth of the body, while the substance coming from the solar pole it considered as mainly making for seed-energy and character-evolution, which in human life might be called evolution of mind, when we consider mind to be the counterpart of the body.

Thus antiquity distinguished between body-making and mind-making, in the universal fermentation-process.

THE SO-CALLED SOUL, CONCEIVED AS A CHARACTER-GERM, i. e. AN ATOMIC CHARACTER-EVOLVING POWER IN LIFE, AND AS A FERMENT-GERM IN DEATH.

Antiquity distinguished between character and form of life; it looked upon character as a mind-power founded in common sense, and rising into the height of native reason, and it looked upon the organic body as a special sense-power, by mind evolved mainly out of earthly substance. What we call body, it knew as the outer form of life and as the enclosure of living character-power. And what we call mind, it knew as character-power. The

former it knew as mainly the product of wet character-germs, and the latter as mainly the product of dry character-germs. The words "wet" and "dry" of course were used in a relative and not in an absolute way; the wet was not considered as altogether wet, but only as emanating from earthy substance and making for dry character, while the dry was considered as emanating from solar substance and making towards the moist, always in the cyclic changes of character. The body was considered as the means to the evolution of character, and the character was considered as the body-developing power. The body, at the extinction of the character-germ, dies, and dying, it was considered as going to waste, as making offal, sewerage, etc., always subject to regeneration, if not immediately, by new character-germs feeding upon it and building within it, then by the slow process of disinfection or ultimate rapid combustion, or by other activity of inanimate ferment-centers.

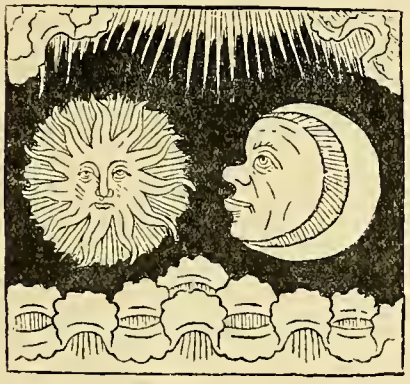


Illustration No. 8

THE SUN AND MOON FACES, USED TO REPRESENT THE TWO OPPOSITE KINDS OF CHARACTER-POWER IN PROCEDURES OF LIFE AND OF DEATH—IN THE DIGESTION PROCESS AND IN THE FERMENTATION OF SEWERAGE.

ILLUSTRATION 8

The old-time ideas about nature are important because they represent unknown facts, which it is necessary to know. The study of these ideas, however, may appear difficult and tiresome to the modern mind, which wants to do all its work with ease in an instant. It may therefore be well to help this study along by an old-time picture.

Cut No. 8, from the sacerdotal art of antiquity, depicts both the idea of wet and cold and dry and hot ferment-germs, or so-called souls, in the life-producing process; as well as the fact that all life is a product of substance, from earth ascending and from sun descending.

The radiating sun-like face represents the so-called dry soul or diapheromenal character-germ, which produces mainly mental powers.

The moon-like face represents the so-called wet soul or sympheromenal character-germ, which produces mainly bodily tissue. These two kinds of character-germs work between the hot-dry substance descending from the sun, shown in the upper part of the illustration, and the wet-cold, watery substance of the earth, shown in the lower part of the illustration.

The earlier distinctions between mind and body were those of dry and wet souls, conceived as character-germs. The former, antiquity depicted as originating in a dry and hot fermentation of the solar character; the latter it depicted as a product of wet and comparatively cold fermentation of the planetary character. It knew a sun-descending and an earth-ascending character. It knew all life to be a compound of solar and earthly substance, and it looked upon character in which the solar substance predominated as of a higher type than that in which the earthly substance predominated, (**auge zera, pysche sophotate**: the dry glow-center (evolves) character of superior knowing powers).

The picture thus consists of four essential factors, two kinds of ferment-germs and two kinds of substantial activity. All these four factors are represented as double-active.

The sun-face is surrounded by a nimbus, composed both of straight lines and waved lines, to indicate its double-active character — its diapheromenal sympheromenal character. The moon-face is partly enclosed by two crescents, the one light and the other dark, in order to indicate its double-active character, — its sympheromenal diapheromenal character. The character between these two germs thus differs. In the one, the penetrating **diapheromenon** preponderates, in the other, the collecting **sympheromenon**.

The watery substance of the earth is also shown as double-active by curved wave-lines, interspersed and alternating with straight lines, so as to show the disinfection of earthly substance by diapheromenal penetration.

The substance descending from the sun is also shown as double-active; the diapheromenal rays are enclosed on both sides by wavy cloud-lines, indicating the sympheromenal activity in connection with the diapheromenal activity, that is, the solar substance, when reaching the earth, is thus shown as changing its original fiery character into somewhat of a water-producing character.

In the old-time conception of fact, the sun was known to contain older waste of life than the earth; it was an old, abandoned graveyard, which was being rapidly restored to life by spontaneous combustion or fiery fermentation, while the earth was a graveyard yet in the making, part of which was being gradually restored to life by diapheromenal disinfection and slow-wet fermentation.

The fiery, solar, as well as the wet, earthy substance in process of fermentation, finds unification or so-called at-one-making, by virtue of the two kinds of living character-germs, depicted in the sun and moon-faces. Thus all life was considered to be a compound of solar and earthly substance, the solar substance giving it more of a mental character, the earthly substance more of a bodily character. the solar combustion being considered as a more thorough restorative to bioplastic condition than the mere disinfection of earthly substance.

We will find how near this idea comes to the truth when we study the polarization and refraction of light, and see its effect upon elementary types of life, their beautiful forms and colorings.

The more closely we study the workings of cell-life by the light of modern knowledge, the more clearly we will see how thoroughly antiquity had studied the elementary and inner workings of nature.

The sun and moon-faces were chosen to depict the two kinds of character-germs, active in the process of life, for the reason that the one was conceived as mainly productive of mental powers or reason-diffusing, while the other was conceived as mainly productive of bodily powers and as sense-reflecting. The former germ-power diffused its own light automatically; the latter reflected only the light shed upon it by the former.

ALL CHARACTER-GERMS EXPEND THEIR ENERGY IN GIVING LIFE TO ORGANIC DEVELOPMENT. ORGANIC GROWTH DOES TO DEATH THE SEED-ENERGY FROM WHICH IT CAME.

In accordance with this view of Fact, we may say that the organically developed life and mind, and especially the mind which has been intellectualized by use of analytic language, has much special consciousness, that it knows much of detail, but that in acquiring this special knowledge it loses much, if not all, of its original knowing powers, its consciousness of seed-energy, and with it, its capacity for comprehension. In acquiring thinking faculties, the mind expends its seed-energy, and loses its consciousness of elementary powers. It comes to know the world as it appears to the senses, the bodily organs, the outer, special faculties of observation, but it loses its consciousness of original mind-power, its consciousness of original causation. It knows what goes on in the organic development of life, but it does not know what goes on imperceptibly in seed-life. It cannot bring itself to know how all the special, organic faculties of living and knowing became concentrated in one little germ.

The sibylline school of antiquity held that this knowledge of germ-power was superior to the knowledge of the special organic powers. It is this superiority which the above Greek quotation expresses, as belonging to the dry soul or character-power. The same idea is expressed in the dictum "The WORD must die that the world may live", meaning that the original knowing power must die that the special knowing power may live, for organic society and civilized life in general need special knowledge and a type of language which can evolve this knowledge and which can

It is to the sun-descending rays in the upper part of the illustration that such sayings refer as **aridus fulgar mens sapientissima**, or **anima sicca jubar est sapientissimum**, or **auge zera, psyche sophotate.**

To the old-time students of nature, such words as diapheromenon sympheromenon had much the same meaning as the modern words electricity and magnetism, at least in as far as these modern words may convey the idea of penetrating energy and collecting energy.

The old-time words, however, had a far wider range of meaning; they included vital and mental tendencies, which the modern words electricity and magnetism exclude. And again: The old-time words were known to represent inseparable counter-tendencies and capacities of substance, while the modern words electricity and magnetism are used as if these two powers in nature could exist apart from each other.

In this line of thought also belongs the old-time argument that moisture impairs mentality: As atmospheric wetness destroys the reflective power of the mirror, so does it impair, not only the faculties of sight and hearing, but also all mental activity. Therefore the nose of characteristic stupidity is placed upon the moon-face, which depicts the wet-germ character (**hygrotes**), in the above illustration.

deal with every kind of detail; and meaning also that this special type of language is evolved at the expense and to the undoing of that other type of language which can re-unite organic or special details with seed-energy, and the outer phaenomenal conceptions of things with the so-called WORD or logos. That which the character of seed-energy is to life, the character of the logos is to the organic knowing powers of man and to the evolution of his free-agency doing powers.

Illustration No. 9

THE TAI-KIH, FROM A ROMAN ENSIGN, DATING BACK TO THE TIME WHEN CHINESE LEARNING REACHED THE EMPIRE OF THE CAESARS.

The Tai-kih is probably the oldest and most comprehensive ideogram which antiquity has produced. It originated in the Fu-hsi school, in its connection with the Kua. In it centers the Great Learning of China, and about it revolve all the great works of ancient thought. If we can bring ourselves to understand the workings of this ideogram, we can come to know the imperceptible causes, active in the process of nature. We can understand the workings of seed-energy in the process of life, and in fact, of all character-centers in the world-process. We can make clear to ourselves the bi-polarity and double-activity of character-power, from which emanate the workings of life and of mind, and in which we must center our efforts of making an analysis of mind.

The Tai-kih is the original key to the understanding of Fact—to the knowledge of natural causation as it is in itself. He who can understand the workings of the Tai-kih need not do, as do our pragmatists, guess at the causes of phaenomenal changes in nature, and form untenable theories and hypotheses, which delude the mind and cause it to substitute opinions for that gisty knowledge of Fact which is needed to make civilization a success.

The Tai-kih is the touchstone of truth, by which each mind can test its own powers of the understanding; it represents the Chinese idea of the "world-egg", the archetype of all life, the original germ-power of cosmic order, extending itself from the fundamental process of nature into the intellectualizing and civilizing processes; and in doing this, it assumes the character of the so-called creative WORD—the Christian LOGOS, which represents the intuitive or inspirational powers of mind, as evolving the powers of language which make civilization possible.

According to the Fu-hsi school, in which the Tai-kih represented the elementary concentration of the powers of life in atomic seed-energy, this seed-energy seemingly did not transmit all its virtues along the way of evolution into the self-consciousness of man. It proceeded, by way of constant self-division, forward and backward, always dividing its old energies, going partly into new life and partly falling backward into universal consciousness. This self-division or death of the Tai-kih is the birth of the Kua. In the solid lines of the Kua live the old-time Tai-kih energies.

This same idea of self-division of creative powers in seed-energy has received world-wide recognition in antiquity. The ancient Americans represented the Tai-kih symbol on the back of their "world-turtle", giving the concentration of living powers a central location, making the feeling heart the home of the senses and not the thinking head.

To know seed-energy means to know, not only the imperceptible tendencies, capacities and characteristics of elementary substance, but it means also to know the very causes of the changefulness of highly organic character-germs, as well as those in the changefulness of inanimate ferment-centers, active in all dead substance and preparing it for some kind of regeneration.

Seed-energy does not remain elementary; in the way of evolution it requires self-conscious, organic character, rising step by step above the elementary level.

In plant-life there is no self-conscious character, and even elementary consciousness is yet only a mere tendency; it is not yet an active capacity. In the rising steps of evolution, animal life becomes more and more self-conscious, and in the full evolution of free-agency powers in the human mind, self-consciousness may be said to officiate as a determining power.

All other great cults of antiquity took a similar view of the evolution of seed-energy and its conversion into human consciousness.

To the Herakleiteans, the powers of seed-energy—the Genius of creation—acted only under the pressure of necessity. Having accomplished successful work, self-division caused part of the seed-energy to metabole back toward the undercurrents.

In the Vedas, when the Genius of Oum had done its work successfully, he stopped to admire himself, and receded from the height toward the depth, leaving his work of creation to take care of itself, we might say.

In the Bible it seems that the creative power, which was the WORD, after having accomplished certain creative work, rested, and did not seem thereafter to have been the one universal and eternal determining-power in the life of man. It seems to have left the evolution of free-agency power in the control of other character-evolving genii, variously named and depicted.

This world-wide idea of self-division in cyclic rising and receding of character-powers brings us face to face with the question: Are the workings of seed-energy and of creative principles knowable in the all-there-is-to-them, or are they only partially knowable? Does the advancing way of evolution throw much backward that little may go forward; and is human consciousness consequently limited—or is it world-wide?

The agnostics and pragmatists hold openly that human character and its self-consciousness know nothing of imperceptible causes, and that all human knowing-powers are vested in the organs of the body.

The theologians, who have enough thinking powers to enter into the subject of trichotomy, take a view diametrically opposed to that of the pragmatists; they indulge in talk of Gods and souls, but their talk leads nowhere but to delusion of judgment and confusion of ideas.

Full exposition of the workings of seed-energy alone can disprove the position of the pragmatists and of the agnostics; and that exposition can only succeed if the studious mind has sufficient powers to concentrate all its special, word-bound consciousness into self-consciousness, and to follow the evolution of self-consciousness back into elementary, universal consciousness.

The most complex of organic types of life, as well as the simplest, has its origin in concentrated seed-energy—in almost invisible atomic character-germs;—and all these character-germs have certain tendencies, capacities and characteristics in common; all

All the elementary workings of seed-energy modern thought calls unknowable, because modern language cannot well serve to elucidate it. The hope of making it known depends on the possibility and ability of resurrecting the old-time knowledge and way of using language.

To make the world-process known means to make the workings of seed-energy known in their connection with the now known phaenomena. Early antiquity had better ways and means of knowing seed-energy than we have; it used language in less analytic and more natural ways. It had mastered the subject. It is in the hope of mastering it again that we are here drawing extensively upon the knowledge of antiquity.

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are bipolar and double-active; all grow by digesting substance in accordance with fundamental principles of assimilation and elimination; and this assimilation and elimination is always of two kinds; it makes bodily, organic powers and individual, mental seed-powers.

Seed-power is always a concentration of what we may call mental tendencies and capacities, no matter how elementary these tendencies and capacities are, nor how far removed from our modern ideas of mind and of consciousness. They differ only because they occupy different stages in the cycles of development and of evolution. The acorn, for instance, presents to our point of view no evidence of mental powers, and we are justified in saying that it has none, at least to our point of view; but yet all the fitness of survival which the oak presents to its environment is concentrated and embodied in the little seed-energy of the acorn.

It matters little whether we call this seed-energy a mental power, a life-power, or even a soul, if we can bring our minds to realize that words used to depict the changeful world-process can only serve as hints at something which lies beyond the reach of fixed dictionary definitions. The one fact remains, that seed-energy, in the cycles of development and evolution, does different work from that done by the organic powers of life. The work done at the depth in the cycle of development differs from that done at its height. It differs as the nature of Springtime differs from that of the Fall, or as the activity of one pole in the magnet differs from that of the other pole. The one pole makes for distribution, the other for concentration of substance in the character-germs of life, as well as in the inanimate workings of the magnet.

Bipolar and double-active character makes all of nature's workings a matter of counter-procedures. The one procedure in counter-activity always differs from the other, for the reason that the digestion-process taking place in bipolar character-germs alternates, and produces different results in the same digest or ferment center; not only in the digestion-process of life, but also in the fermentation-process of sewerage-substance. The alternating digestion-process at one pole of the digest-center produces bodily organic tissue, and at the other pole it produces seed-energy, just as the character-centers in the fermentation-process produce the opposite effects of concentration and distribution at opposite poles. This difference in digestion underlies all cyclic changes. Every living individual has twofold digestion-powers; the one is a body-builder and the other is a mind-maker. The body has limited mental powers; the mind has a limited amount of bodily tissue.

The digestion of substance, which produces the seed, differs from the digestion of substance, which produces the body, inasmuch as the former concentrates the living powers into but little tissue, while the latter extends the living power into organic development, and embodies but little mind in a good deal of tissue.

In the course of evolution, the former digesting power makes for the evolution of reasoning powers and of character, while the latter makes for the evolution of sensible

Our present kind of knowledge, which the sibylline school of antiquity considered shell-knowledge—body knowledge—,i. e. knowledge belonging to the death-going body and its senses, it knew to be diametrically opposed to the knowledge of seed-energy and of character-evolving power. These two kinds of knowledge were always represented as occupying opposite positions in the rhetorical zodiac. The sibylline school considered sense-knowledge as diametrically opposed to knowledge of reason. It distinguished between bodily sense and reasoning character. The reasoning, determining and character-evolving power it considered as divine, and the sense or body-knowledge it considered as earthly or human. To the former it alluded by all kinds of words denoting soul-ideas, but the soul-ideas always referred to substantial seed-energy and atomic character-germs of life, if we may use the word "atomic" to denote foci in which life's activity is generated. But not only the character-evolving power, but even the changeful,

tissue and of bodily housings, which the character-power inhabits. Since the seed-energy in elementary life makes for the evolution of reasoning and character-powers, we may as well assume that the most elementary seed has mental tendencies, which, in the course of evolution, can be converted into actual capacities, and we may reasonably call seed-energy a mind-power.

The words mind and soul, as applied to a low order of vegetable and animal life, may appear as foolish to the so-called realists as does the theological term God, when applied to the process of nature. This foolishness arises only in the modern folly of attaching hidebound definitions to words which have a world-wide meaning. When speaking of the world-process, words can only figure as hints to the open mind, which can connect its own changeful knowing and doing powers with the one chain of natural causation, and can bring itself to realize that the powers of life and the forces of death constantly interact in digest-centers, and that so interacting, they constantly change from the one into the other. The forces of death become life-sustaining powers, under the control of character, and the dead things come to life in the process of digestion. The non-vital forces are only apparently devoid of life; the non-mental things are only apparently devoid of consciousness; the tendencies to consciousness are latent within everything; consciousness is a universal characteristic of substance. That seed-energy which is apparently, and for the time being perhaps actually devoid of mental powers, does actually produce mental powers in the cyclic course of evolution, and hence we may be justified in saying that consciousness and mental powers are latent characteristics of seed-energy, and we must not balk when antiquity uses the word PSYCHE in a world-wide sense, to denote the character-power of seed-energy.

In explaining the workings of the Tai-kih ideogram, we must first bring ourselves to realize that it represents the atomic pivot—the world-axis,—for the reason that all cyclic procedures in the development and evolution of life, as well as in the envelopment and involution of life's powers in sewerage-work, are caused by atomic activity. The invisible atom or character-power, in the procedures of life as well as in those of death, does the visible work, by ways and means of fermentation and digestion.

Atomic character-germs are the active powers in the generation and propagation of all types of life.

All types of life originate in the focalized concentration of the individual and special powers of life, which constantly interact with the universal tendencies, capacities or forces of death. The maintenance of life is a continuous but alternating assimilation

inanimate ferment-centers, coming from the solar side when making for the regeneration of sewerage-substance, were depicted in antiquity as acquiring some kind of soul-power, and acquiring this power, they were sometimes deified and represented as divine personifications. This conception led to the old-time idea of palingenesis.

The difference between knowledge of the senses and knowledge of reason, of native, self-conscious reason, as the sibylline school conceived it, is virtually the difference between "how" and "why"; it is the difference between agnosticism and metagnosticism.

While the agnostic says: We do not know the unseen world; we have no conception of creative reason; we can only have an indirect or negative knowledge of the imperceptible causes in nature, the metagnostic seems to say: We can also have an immediate, positive, absolute knowledge of these imperceptible causes. The medieval metaphysicians entertained the same idea, but they failed to prove it. The theological inspiration theory is also based upon similar views, but it does not contain any rational grounds for such views. Inspiration from the causes of life, active in the world-process, might be a reasonable idea, but inspiration furnished by some absentee God, existing only in theological imaginings, is quite another thing. Knowledge comes whence comes life; the causes of life are the causes of knowledge.

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and elimination-process; it is a two-fold process—a mental and physical digestion-process. That which has character to sustain the order of life is assimilated, while that which has no such character is eliminated by individual character-germs.

The universal and individual forces of life and of death circulate about and through individual character-centers, hence the Tai-kih, which represents character-centers in a general way, is known as the axis of the world.

The Tai-kih may or may not be the best ideogram of character-centers, but coming, as it does, from the Fu-hsi school, we will do well to consider it favorably, until we find whether or not the microscopic investigation of cell-life proves it a true ideogram of the workings of digestion-centers.

The Tai-kih is a symbol. All the genuine, old-time symbols are intended to represent the elementary activity of natural causation. This the Tai-kih presumably does. It is intended to represent in a general, symbolic way, the workings of the digest-center in which all life originates.

The elementary workings of life closely adhere to the elementary workings of substance, as we will see hereafter, and this adherence is demonstrated in the case of the Tai-kih, to some extent. The polarization of light, which shows the elementary workings of substance, plainly shows the Tai-kih form. (See the illustration in the appendix.)

But while the Tai-kih form is visible in the polarization of colored light, it is not visible in colorless cell-life under the microscope, and it remains to be seen whether or not all cell-life is constituted as this symbol indicates. In either case the Tai-kih will serve its purpose; it is an excellent means of illustrating the elementary workings of

There are ways of knowing the causes of life and of knowledge, active in the world-process, and one of these ways is the revival of living consciousness, which accompanies the power of life from its elementary seed-energy to the height of its organic character. It is this consciousness which the evolution of the analytically thinking consciousness has obscured and done to death.

THE KNOWABILITY OF SEED-ENERGY.

If we can revive the living consciousness, we can know the world-process; we can know why simple seed-life embodies organizing powers. If we can know it, we should be able to prove it by finding words to make it known to others.

The reason why we live and why we can know what is going on in the world-process is embodied in the character of seed-energy. It is character-power which does the to-order-setting in the world; it focalizes, unifies and embodies the elementary counterforces, active throughout nature. It forms elementary ferment-germs, and it converts these in the way of evolution into digestive powers, of simple life to begin with, and of complex, organic life eventually.

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life, the causes of alternating digestion in body and mind-making, and the eventual metaboling from one nucleus to the other, which causes the self-division in cell-life.

The Tai-kih-symbol consists of two Tadpole-designs, the one blue, the other red; the one making for masculine, the other for feminine life; both enclosed in one housing, and divided by a procedure-sign. Each tadpole has an eye or nucleus, in which the digestive work is done. This nucleus is bipolar and double-active at each pole; it assimilates at one pole, while it eliminates at the other, and it alternates its polar workings.

The Tai-kih-ideogram must not be conceived as a mere diagram, having only mathematical extension and no thickness; but it must be considered as representing an approximately spherical form, which, by reason of biaxiality, eventually assumes the egg-form—the form of the archetype of life.

The Tai-kih of this form is surrounded by what modern science would call the electromagnetic field, or what the early Herakleiteans knew as the PERIECHON, the double-active, protoplastic atmosphere; and upon this protoplastic environment it draws for substance, and into it it eliminates waste when growing.

Only one of the two tadpoles in the Tai-kih ever starts the growth; the nucleus in the other remains apparently dormant. It is in part consumed by the growing tadpole or shoved aside, converted into a rib, it is said, figuratively speaking. Yet this dormant tadpole is never dead. While its body disappears, its nucleus gains power. While the nucleus in the red tadpole grows in extension, building up bodily, organic power, that in the blue tadpole gathers seed-energy, or vice versa. As the growing tadpole approaches the fullness of its development, the digestion-power of its nucleus becomes exhausted, and that of the dormant nucleus awakens and begins its work of digestion. Eventually self-division results. All of this is clearly notable in the workings of cell-life.

Nature has a provision, which causes germs of life to place their poles sunward and earthward, and these poles draw alternately on the substance of the sun and the substance of the earth. As they draw in the one way or the other, so do these poles nourish bodily and mental powers of one kind or another. The provision of nature to point the poles of germ-life sunward and earthward is carried into organic development, and an evidence of it may be seen in the chalaza of the chicken-egg.

Character-power controls evolution, from the simplest to the highest type of organic life, and it undergoes many changes in this course of evolution. As organic complexity advances, step by step, by reason of its character-power, so does every organic type of life embody its special powers in seed-energy, so does it preserve the character which caused its growth and through it, the power to regenerate itself.

Character-power is the first and original cause of creation. Its changefulness is constantly re-embodied in seed-energy. Character-power does the work of the digestion which creates and maintains life. It is the immortal power which, by its own changefulness, carries along the work of development and evolution.

It is character-power which causes the body to grow as it does. The body with its faculties of sense and sensible knowing powers dies, but the immortal character-power carries along the reason of living, by embodying itself in seed-energy.

Character-power sheds its organic body as the snake sheds its skin.

Darwin, Huxley and Haeckel ignored character-power in their evolution-theories, and no modern thinker has ever mentioned it.

In cell-life, as in the Chinese idea of the tadpoles in the Tai-kih, digestion is double-active; it alternates from one pole of the nucleus to the other. It draws alternatingly on the solar substance above and on the earthy substance below. Drawing in the one direction, it grows in bodily, organic powers, and drawing in the other direction, it grows in character-power. And this character-power evolves seed-energy when the above described self-division takes place; that is, the nucleus in the fully developed tadpole also divides itself and forms two new nuclei in the divided tadpole, thus restoring the biaxial Tai-kih character and perpetuating the process of cell-development and of life.

Modern learning pays little attention to the alternations of polarity in digestive foci. It does not realize that the morning digestion in the human stomach is of an opposite kind to the evening digestion. Antiquity, however, thoroughly understood this fact. It understood the cyclic changes of life in seed-development, as well as in the development of the organic body. It knew that the PERIECHON or protoplastic environment of life underwent cyclic changes; daily, monthly, annually; and it also knew that these cyclic changes without, together with the cyclic, alternating polarity within the character-germ, started the life either of the red or of the blue tadpole, and thus produced either masculine or feminine life.

The facts to be remembered in regard to the ancient Chinese idea regarding the original causes of cosmic order and life are:

First—Focalization of counter-active elements in individual digest-centers is the active cause of both cosmic order and life.

Second—All individual digest-centers are bipolar and double-active at each pole.

Third—The digest-center is the axis of evolution, but it has biaxial tendencies, and actually divides itself, making all digest-centers in life biaxial and productive of either masculine or feminine life.

Fourth—Only one of the two nuclei in biaxial germs grows at a time, and growing, it makes for self-division. When its growth stops, the other nucleus begins its growth, and growing, it makes for division of the two tadpoles in the Tai-kih.

Hence the world, which only knows what it hears, has not been made familiar with it, and still believes that Huxley told all the knowable truth about evolution, and that character-power is unknowable. The modern mind which cannot think for itself always falls back upon Huxley, who had the last popular say upon the unknowability of Fact.

If we can know what takes place in seed-energy, we can know the character-power which causes all existing things to grow, and we can know original causes.

Seed-energy is much like the magnetic needle; its character-power is active without undergoing any apparent changes. Our special faculties of sense-perception cannot furnish us any knowledge of what takes place in seed-energy, hence the activity of seed-energy must ever remain a closed book to those scientists who deduce their knowledge of nature from observations of her outer workings.

Our special senses, however, are only a part of our mental equipment. They were evolved out of common sense—out of elementary, living consciousness—as were all special faculties and powers of mind. Among the powers so evolved are our reasoning powers and the self-consciousness of our own human character. If we can trace our reasoning powers to their origin, we can enter into the imperceptible workings of seed-energy. This tracing back

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Fifth—The division of the two tadpoles results in the self-division of both, and makes the resulting tadpoles again biaxial.

Sixth—The continuation of the alternating self-division in each digest-center, and of the other self-division between the two digest-centers builds up the tissue in all types of life in nature, as explained in illustrations to cell-life hereafter.

The Tai-kih-ideas are in part verified by the theories of modern evolutionists, but the process of digestion, so far, has not been connected with those theories. Much is known of bipolarity and biaxiality, but not in connection with the digestion or fermentation process. If the Tai-kih-symbol is a correct representation of that process, it must be possible to verify it in connection with all phaenomenal changes, such as the workings of light, heat, electricity, etc., as well as those of life.

Modern thinkers have struggled with the ideas of bipolarity and metaboling, but none, as yet, have arrived at the conclusions of the ancient Chinese and of the sibylline school in general. None, so far, have shown that the metaboling of polar activity in each nucleus alternately builds up body and mind, while the metaboling of the power of one nucleus into the power of the other nucleus causes the self-division with which Darwin and Haeckel have made the world familiar. Self-division of cell-life builds up all organic bodies, as every evolutionist now knows, but the causes of self-division are unknown, and these causes the Tai-kih attempts to explain by biaxiality, which presumably characterizes all seed-energy in its ANODOS—in its way toward organic development.

I will return to the subject of the Tai-kih later, in connection with the Kua.

is merely a reasoning from cause to consequence. The ability to so reason is part of our mental equipment, but it is, unfortunately, the very part which has been utterly neglected by all historic ways and means of education. It is because of this neglect that no modern thinker can claim fully evolved ability to reason from cause to consequence and to do the most important of all mental work as it should be done.

Reasoning from cause to consequence is an entirely different process of mind from that which modern learning calls reasoning. It is a twofold digestive process, which first prepares judgments in the proper, now unknown way, and which then re-digests those judgments in self-consciousness, weighing the products of the first mental digestion, assimilating that which has suitable character and eliminating that which has no such character, on precisely the same principles of procedure as those which govern the creative work in nature's activity.

If we can learn to reason in accordance with creative principles, we can learn to know the inner workings of seed-energy, the how and why of its development and evolution. The knowledge

Illustration No. 10

A DOUBLE ACTIVE CROSS, REPRESENTING THE ATOMIC AND HENCE THE UNIVERSAL DOUBLE ACTIVITY IN ALL OF NATURE'S WORKINGS.

A double-cross from ancient Mexico, (after Dupais) symbolically represents the universal and individual characteristics in the world-process and in natural causation. It may aid us in understanding the old-time ideas which all the world at one time had in common; it may aid in making that known which is now considered unknowable, viz: the imperceptible causes of nature's activity, which underlie all perceptible effects —all phaenomena.

Here the many simultaneous changes, which take place in the undercurrents of the universal fermentation-process, are condensed into one ideogram, in order to enable the

of creative principles is not inaccessible to the human mind; on the contrary, these principles are active in the daily life of man, and they arise in human self-consciousness.

Creative principles govern the procedures in all fermentation and digestion. To understand the process of digestion means to understand creative principles. The work of digestion is the universal and individual work of creation. In it the order of life arises, and by it the order of life is maintained, physically, mentally and intellectually.

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mind to collect in one comprehensive idea the many detailed statements which it is necessary to make, for the purpose of elucidating the changeful subject by analytic and statical words.

This ideogram is conceived on strictly sibylline lines, and its symbolic value is greater than that of any other one pictorial representation of the same subject, for the reason that it goes further into depicting the details of nature's elementary work than do the crosses of the Old World. It depicts elementary duality, the forces collecting life's offal and the forces distributing it. It depicts these two forces as united but counter-active to each other, and hence the bi-polarity of all things. It does this by reversing the elbows of the double arms, to indicate a counter-active revolving about the same center, viz: the cyclic counter-procedures in the undercurrents of nature's activity, as they occur in each individual thing, accompanied by corresponding inward and outward radiation, from and to its character-center, a radiation which the arms represent, for all atoms of substantial existence are made out of or characterized by straight-line radiation and circular movements about a character-center.

The bent arms of the double-cross show the bi-polarity at the ends of all four double arms, the one bend indicating circular movement and the other radiating movement, in a way peculiar to American ideograms.

We have here, then, the idea of diapheromenal sympheromenal union of elementary activity, as the Greeks understood it, or the union of electricity and magnetism, as we might say, from the modern point of view, if we consider electricity and magnetism to be the two elements in the undercurrents of all existence. The inward-bent elbows at the ends of the double arms indicate the collective activity, such as occurs in and about planets; the outward-pointing ends of the elbows indicate the radiating solar activity. The union of these two, then, represents the double activity of our atmospheric environment, its tendencies to hot and dry and to wet and cold fermentation or change of substance.

The ancient Americans had a peculiarly effective way of depicting the elementary counter-activity, the radiating diapheromenon and the circling sympheromenon, by dissipating flame and by solidifying circle. It is this flame-and-circle-representation which appears suggested at the points of the eight elbows, taking the place of hands, to give the idea of elementary doing-powers in action and reaction, making for both fire and water at the same time, that is, having a tendency to ascend and descend in the one process of fermentation. These ascending and descending tendencies in this cross appear as balanced, to indicate the protoplastic conditions which surround the central living character affixed in the cross. This cross, then, corresponds to the Greek THYMOS-idea, as the core of the word ANATHYMIASIS, viz: the balanced union of earthy moisture and solar heat, as bioplasm, characterizing elementary life. Our word "blood-warm" might correspond to the same idea—not too much dissipating heat, not too much cold and solidifying moisture, but these two tendencies in equilibrium, making elementary protoplasm.

So far the symbolic representation of the universal characteristics of nature's motivity; now the individual characteristics.

The world-process is a process of digestion, proceeding in accordance with principles of assimilation, elimination and concentration in character-centers. The human mind has an active, self-conscious character-center. If thought pays attention to its workings, and uses the proper words in the proper way to represent these workings, then thought can make known what goes on in seed-energy.

Therefore said Herakleitos "I seek myself" i. e. in the world-process. Therefore also said the Greeks "Gnothi seauton"—know thyself. The apparently inactive seed-energy is constantly active in digesting substance. It is only this digestion which preserves seed-life, and the changes in this digestion cause it to reproduce

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At the crossing-point of the four double arms appears a mythical figure, descriptive of living character-centers, indicating the union between the elementary, inanimate activity of nature and its animate workings;—the inseparable union of life and death.

This figure is of an organic nature, and ornamented with the view of describing organic character and its reciprocal giving and taking, based on the necessity of acting in accordance with elementary principles, such as appears in the Tyche and Heimarmene-ideas of the Greeks.

The one arm of the figure points to doing the work of reason; the other to doing the work of sense. This figure, in connection with the double-active cross, virtually represents the same idea as does the Egyptian Sphinx. The word "sphinx" literally means "double crossings in the way of evolution."

When we come to look into the subject of dialectics, ethics, finance and politics, etc., we will find this and other living ideograms of unexpected service. The Riddle of the Sphinx—the doing of the right thing at the right time in a great and growing civilization—probably never will be solved without the ideograms, into the meaning of which antiquity had crystallized the experience of ages.

The many other lines on the cross, descriptive of the organic workings of nature, need not occupy us just now, as we are only dealing with the elementary workings of the world-process for the present, and besides, the ancient American idea of the causes of organic development and evolution are very much more clearly and minutely represented in other American crosses and ideograms than on this. That which is of special interest to our purpose is the CROSSING-POINT, which appears depicted at the breast of the figure on the cross, as a face suspended by a chain from the neck of the figure. This face, representative of the CROSSING-POINT, is almost identical with the Zoroastrian representation of the same subject—the Ahura Mazda idea—and therefore represents the creative power in the process of nature and the so-called creative WORD —HONOVER, or the Christian LOGOS-idea—as the creative power or Genius of creation in the process of civilization.

The CROSSING-POINT, as the life-generating focus, is the one thing in which the sibylline school of thought concentrates all observations and experiences. It is that which I have here called glow-center, character-center, nucleus, nucleolus; it is the ferment-center in all dead substance and the digesting center in all of life's activity; and this CROSSING-POINT, in connection with the double arms depicted in this ideogram, will eventually show us just how the digestive workings of nature proceed in fourfold, double-active ways to produce living-power, mental and intellectual activity. It will show us this when we come to examine the workings of cell-life, its digestion and self-division, and the fact that every act of nature, life or mind is accompanied by a counter-action, and results in a reaction, which in its turn also is accompanied by another counter-action, thus making four procedures, as indicated in the four double-active arms of the cross.

organic life. It is the character-work in the process of digestion which we must know, in order to know the original causes of life and of knowledge.

It is the how and why the world moves as it does which I am here trying to make clear. If I succeed, I can make the world-process known. I hold that we can have absolute and immediate knowing power of the reason why the work of creation proceeds as it does, for our living consciousness stands immediately connected with the character-work in creation. The world does not have an explicit knowledge of this reason at present, because analytic language leads the attention of thought away from the living character-consciousness. Analytic and specially sensible knowledge is developed at the expense of character-knowledge and of common sense. Analytic language is developed at the expense and to the undoing of that organic language which can deal with character and its common-sense foundation. Organic language has been pushed out of use by analytic, special sense-language, and for this reason, the elementary, implicit knowing powers of the thinking world have not been evolved, and the world-process, the fundamental principles of life and of death, and the reason of creation have been obscured, lost sight of, and consigned to oblivion, perhaps to remain unknown.

CAUSE AND EFFECT ARE ONLY DIFFERENT ASPECTS OF THE SAME FACT — OF THE SAME LINK IN THE CHAIN OF NATURAL CAUSATION.

Prehistoric ages held that cause and effect are the same thing. As the cause, so the effect; as the effect, so the cause. Simple ef-

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I have forgotten to mention that the double arms, as shown in the above ideogram, represent the self-division-idea, and the points at the bend of the recurvant elbows represent the special polar activity in its alternating changefulness.

The explanation of the above cross, here given, may not be sufficiently explicit to make its full meaning readily understood. Words, as here used, are only hints to the mind, and each mind must work out symbolized subjects for itself. The mind, which cannot understand the meaning of this cross, with the help of the limited explanation here given, will not be able to understand the workings of polarized and refracted light, for light works in elementary ways, and these very ways are represented in the arms of this cross-symbol.

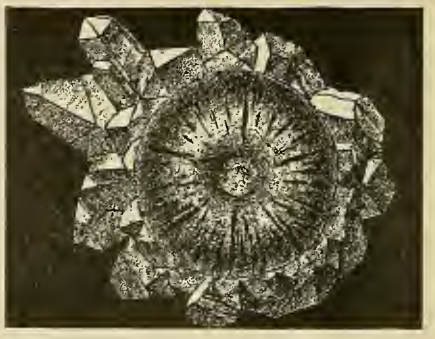
The mind, which cannot understand the elementary workings of light, heat, electricity, magnetism, or other elementary activity in the undercurrents of nature, cannot understand the fermentation and digestion-process, and it certainly cannot understand the elementary energies in the way of life's development and evolution.

The universal characteristics of nature's activity must be understood before the individual characteristics can be comprehended.

The subject of CROSSING-POINTS and other individual features of fact, represented by the figure on the cross, are a far more difficult study than that of elementary characteristics.

The illustrations given further on will throw much more light on this subject, so that it is not necessary to dwell longer upon it here.

fects have simple causes; highly organic effects have highly organic causes. Holding this, the sibylline school knew of no God, active in the elementary workings of nature. It looked upon these workings as preparing the ground for human evolution, in accordance with the principles of life and of death. It never deified the causes which prepared sewerage for the work of life, or which evolved life up to the height of animal existence. From its point of view, the cause which made the animal was of a mere animal nature, and called for no reverence on the part of man. Therefore the sibylline school began its deification with the evolution of human character out of animal character; and it knew language to be the cause of



ILLUSTRATIONS 11 and 12

TWO SECTIONAL VIEWS OF HAILSTONES, ILLUSTRATING THE WORKING OF CHARACTER-CENTERS, IN CONNECTION WITH THE TWO ELEMENTARY TENDENCIES OR FORCES IN NATURE.

The inner formation of the hailstone (11) appears as a large circle, enclosing the radiating power emanating from a small circle. It has much the same appearance as an elementary cell of life, seen under the microscope. The two elementary forces which produce the hailstone also produce elementary cell-life. The difference between hailstone-formation and that of cell-life is that of a different power of digestion in its character-center.

The elementary forces we can describe as diapheromenal sympheromenal, or as electromagnetic, but we must bear in mind that whatever we may call them, the one proceeds by circular motion, the other by radiating in straight-line direction, and we must also remember that both forces are double-active and alternating in predominance and subservience. They act and they react, and there is a counter-action to both action and reaction; that is, they proceed at the expense of each other. They first form the little nucleus within the larger circle, by radiation from the crossing-point and by checking this radiation; then the checked radiating power in the crossing-point receives reinforcement or nourishment from the electromagnetic field without, and breaks through its first magnetic confines, to be again checked by the magnetic counter-activity and again enclosed, this time by what antiquity knew as an ANAMMA, virtually a magnetic band, plainly seen in the cut.

The hailstone thus owes its origin, as do all things, to some character-center, working from within outward, as does the digestive work of cell-centers in cell-life, up to a given limit, set by the circular, magnetic, enclosing power.

this evolution. Therefore also was the WORD, the **Logos, Honover, Oum,** etc., considered and deified as the cause of creation—of human creation.

The causes which gave man the power to embody living consciousness—the reason of living—in language were deified, and these causes were always character-powers, active in human self-consciousness. The organs of speech were evolved in the human body; they were effects of creative causation. Where the effect, there the cause. From the character-power which created the organs of speech emanated the gift of language; so held the sibylline school, in all its branches. But that character-power acted in accordance with **creative principles**—in accordance with principles of life and of death,—and these principles controlled the unending process of nature. They were the foundation of all creative work, but they had no personifiable character.

THE ORIGIN OF THE GOD-CONSCIOUSNESS

The original God-consciousness, with the sibylline school, was the consciousness of **creative principles**; and the God-consciousness which this school personified, was that one-time character-power in man, which evolved the organs of speech.

According to this school, the creative character-power, by the gift of language, enabled man to embody the consciousness, inherent in the powers of life, and the possibility of this embodiment gave man superstructural knowing powers and the ability to evolve free-agency character; that is, the ability to act in accordance with creative principles of procedure, in guiding his own conduct and in establishing organic relationship between man and man—in organizing society—in civilizing mankind.

In order to understand the workings of the causes of creation, we need only relearn the lost art of embodying living consciousness in spoken language.

The fermentation, if we may so call it, in the hailstone-formation, is thus quite similar to the digestion in elementary cell-life.

The outer crystals, which adhere to the inner sphere, are formed by the descent of the originally spherical form, falling from the upper strata of the atmosphere, where it is formed, through the clouds beneath. The character-centers in the upper atmosphere, which form the core of the hailstone, are of a different kind from those which cause the crystallization of ice about the core.

By these two hailstones, we may see that the elementary forces of inanimate nature have character and form, much like the powers of life, active in the formation of cells and of all animal tissue. The elementary, non-vital fermentation proceeds as does the vital digestion.

It may not be generally known that the hail-producing clouds usually rise suddenly far above the ordinary cloud-levels, since these observations have only been made recently, in a few instances.

The hailstones, here represented, are shown of less than actual size, fallen in France, and investigated there by local scientists.

Everybody can give expression, by dictionary words, to his ideas and opinions, but no man by these words can embody the reason of living and of dying. The modern grammatical languages may enable the mind to embody sense-knowledge and ideas regarding it, in words, but they do not enable the thinking ego to so embody the reason of living, for grammatical language has no true character-power. It has dropped the prosopopeia-system, which could and did represent character-power.

The thinking ego, at the present stage of its mental development, can at best use words only as hints to the living self; and it can do this only if it is not inflated with self-sufficiency and with the conceit that its ideas are truly representative of Fact.

ILLUSTRATION 13

THE SPIRITUAL DIONYSOS, AS PATHFINDER IN THE WAY OF REASONABLENESS, AND THE PHYSICAL SILEN, AS THE ONE-TIME EDUCATOR OF THE FACULTIES OF SENSE, BUT NOW AS GOING TOWARDS DEGENERACY.

Dionysos and Silen are here produced only to draw the attention of thought to the old-time idea of the difference between the REASONABLE and the SENSIBLE workings of mind. Both Dionysos and Silen figure as educators of mankind in mythical stories. The latter is a means-developer, who labors to make the world physically sensible and to enable it to use the opportunities of its environment, as is necessary for the maintenance of civilized life. The former is a character-evolver, who labors to bring mankind into the right and reasonable way of using the means at its command.

As the work of Silen draws to a close, the work of Dionysos begins. Both educators of mankind have a beginning, a climax and a stage of degeneracy, moving through the cyclic course of intellectual and social development.

The remarks here made regarding these characters are not intended to explain their work in detail, as did the ancient stories; they are only intended to make the stories intelligible in as far as they have a bearing upon our subject, in as far as they deal with the changeful requirements of man's knowing powers for the work of civilization, as antiquity understood it and as it should be understood. The mythical way of depicting Fact is to some minds more easily understood than the prosaic, grammatical way, and it is for this reason that these mythical characters are here introduced. The mythical stories do not represent Silen and Dionysos as personifying the best of human knowing powers, but rather as characterizing the average mentality of mankind and the attempted improvements in the manner of educational and disciplinary endeavors. These mythical personifications of REASONABLENESS and of SENSE were conceived as working

One of the first steps which the thinking mind must take towards a knowledge of natural causation, is that of distinguishing between **reason** and **sense,** between self-conscious character-knowledge and sense-knowledge, between the consciousness which emanates directly from the powers of life, and that special-sense consciousness which stands only indirectly connected with those powers. (See illustration of Silenos and Dionysos).

CHARACTER-KNOWLEDGE

Self-conscious character-knowledge emanates directly from the life-evolving powers in the process of nature—from the germ-

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in unconventional, unsystematized ways in the public mind, at a certain stage of intellectually hidebound development.

Word-vested, hidebound ideas are the conventionally recognized powers, which control civilization when learning comes into control of mental development.

The public mind is not always in strict accord with the learnedly established regime. It holds naturally to the promptings of reasonableness and of sensibleness. Thus holding, it joins the THIASOS of Dionysos, the love-feast in the propaganda for freedom from conventional shackles, and revival of that enthusiasm which the free-agency mind naturally conceives for the recognized leadership of right and reason.

Dionysos, the mythical genius of reasonableness, appears in the propaganda as an intellectual offshoot of NATIVE REASON, and Silen as a special bi-product of COMMON SENSE.

What historic archaeologists tell and teach about Dionysos and Silen we must lay aside as a batch of conventional opinions, which differ widely from the original conceptions which gave birth to these two mythical characters. The old-time character-stories describe their origin and career, for the purpose of depicting certain mental factors active in the intellectual and social evolution; and these descriptions have nothing in common with any historic conceptions, ancient or modern; therefore we should attach no importance to them. Nor should we accept the idea of Herakleitos regarding the Dionysos movement as gospel truth.

Herakleitos, like Moses and Peleus, was a mudborn genius, a mere means-developer, who, being unable to build into the Height of free-agency powers, railed at the Joy of Living. He saw that wine, women and song bring ruin to weaklings of character, and having only elementary reasoning powers, he sought to remedy this matter by reducing the highly organic workings of life to the level of elementary principle, instead of trying to strengthen character, so as to hold it to the free-agency Height.

The dogmatic, mudborn mind ever endeavors to pull down the freedom of highly evolved self-conscious character, and force it into some ideal strait-jacket, which pretends to represent the elementary principles.

DOGMATIC thought is the intellectual antipode of the EMPIRIC type of intellectuality; the former confines its activities to burrowing about the foundation of life in search of elementary principles, while the latter ignores these principles entirely. Between these two mental extremes there always enters a third tendency of mind, to play a part in the intellectualizing and civilizing business; it aims to pursue a middle course; i. e. the sensible and reasonable METHOD. It is this method which is in part represented by the mythical stories regarding Dionysos and Silen.

Greek antiquity recognized three branches of intellectuality, the dogmatic, the empiric and the methodic.

Originally Dionysos was not conceived as a leader of licentious sports, nor Silen as a sot. The stories concerning the drunkenness of Silen were intended to depict the undue ambition of the spiritually deficient, prosaic sensibles to figure as apostles of reasonableness. The stories of riotous extravagances in the Dionysian rites were meant to illustrate the tendencies of the mind, which seeks to free itself from conventional shackles, to convert the freedom to do right into the license to do wrong.

powers of life;—while sense-knowledge is a secondary development, not immediately, but only mediately, by means of special bodily organs, connected with the powers of life; and these special organs in daily life come under the influence of thought and language, and are by them exercised so as to connect themselves rather with the world without than with the world within.

The knowledge of the world within, of creative reason and of the elementary necessity of proceeding in a certain way to maintain the order of life, is evangelic, i. e. emanating from the germ-power of life and going outward, and it was so known and described in all antiquity; while the knowledge of the senses and of adaptation to environment is apostolic and largely acquired hearsay knowledge, known in antiquity as earborn knowledge. (See explanation to Chinese Kua and Tchy, and note the yolk in the broken world-egg, in the Praja-pati picture, No. 7.)

Mother Eve and Venus Urania are mothers of evangelic knowledge, while Aphrodite Pandemos is a mother of sense-knowledge, of earborn or apostolic knowledge.

Apostolic, indirect knowledge stands to evangelic, immediate, or absolute knowledge in the position of initiative to referendum

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The supporters of the orthodox Zeus cult looked upon the spread of the Dionysian cult, if we may so call it, as a danger to the established order of civilization—as a form of heterodoxy—and they associated his alleged worship with the idea of license to do wrong. The then orthodox authors seem to have conceived the world-wide Dionysos-movement as representing the unhealthy tendencies of the mind to cut loose from the necessary restrictions which civilization must ever impose upon mankind. Therefore we often find the Dionysos and Silen characters represented in a bad light, and the ceremonies which attached themselves to their cult we often find mythically depicted as licentious procedures. The later myth-writers were not thorough Fact-knowers; they were not thinkers who understood the world-process thoroughly; they differed in their opinions as the superficially learned always differ among themselves. The later, mythically expressed opinions we must ignore, and hold to the original, main strands of the Dionysos myth.

The original conception of the THIASOS arose in the old-time ideas regarding the twofoldness in the digestion-process. Both the physical digestion of the stomach and the intellectual digestion of life's conscious activity were conceived as being bipolar and productive of different results, making the mind prosaically sensible, on the one hand, and on the other hand, inspiring it with enthusiasm for reasonableness; and the influence of wine and water upon digestion was used to draw attention to the causes which produce the difference in mental powers. The one kind of digestion, being stimulated by the warm character of wine, was known to make for spiritual reasonableness; the other, being affected by the character of cold water, made for physical sense; and the mixing of the wine and water in religious rites was symbolically expressive of making the mind both sensible and reasonable.

The power of prosaic sense was understood to act as a means-developer, and that of enthusiastic reason as the ability to make rightful use of means. The sensible Silen figured as means-developer, and the spiritual Dionysos as the inspirational power for the rightful use of means, in the mythical stories. This distinction is much the same as that which the Brahmins make between Siva and Vishnu.

before the throne of self-conscious, free-agency character. So antiquity has held; so it is and always will be, when language serves man to fully evolve all of his original knowing powers.

The talk of Gods and of souls is delusive; it substitutes fixed ideas for the active consciousness of the mind. If the word "soul" means anything, it means a character-power.

If the Gods have anything to do with the world of creation, they must be character-powers, active or passive in the process of life.

The rather modern invention of the word "God", like the invention of the word "soul" by Anaxagoras, is a short-cut toward character-knowledge, which leads the mind away from the very doing-power which it intends to elucidate, and drives it hopelessly about the labyrinth of terminological knowledge.

Antiquity usually considered it necessary to stimulate the natural enthusiasm for the civilizing purpose in man, that he might not make a mere means-developing machine of himself, but that he might also evolve the power of making such use of means as is necessary to make civilization a success; and since antiquity conceived the causes of all development and evolution, be they those of life or of mind, to proceed according to the principles which control the digestive activity of character-centers, it made wine and water, which were known to affect physical digestion in a twofold way, symbolic of the educational process, designed to evolve the intellectual powers for the control of civilization. Wine and water, as a consequence, were introduced into religious rites.

The THIASOS was not a mere gathering of spiritual enthusiasts, but it was much like the Eucharist, a digestive Communion-service, intended to bring unanimity into the great diversity of mental activity, and harmony into the world of conflicting opinions.

The heaven-born Dionysos represented the intuitive or evangelic powers of reason, and the earth-born Silen the apostolic or special powers of sense, the one being animated by the dry and warm soul of heaven-descending reason, and the other by the wet and cold soul of earth-ascending sensibilities, as antiquity put it, the two to meet in the at-one-making of man's dual character, by ways and means of propaganda, that is, educational endeavor.

Language has brought down to us the old-time ideas of dry and warm and wet and cold character in such phrases as "hot-tempered" and "cold-blooded".

The old-time educational endeavors were very unlike those of our times. The modern educator aims to cram READY-MADE IDEAS into the mind. The old-time educators did not look with favor upon the cramming process; they knew it to be a matter of rule and routine, which had fallen away from the truly instructive process, which developed the faculties of physical sense in the youthful mind and prepared it for the final educational work, that of evolving the reasoning and character-powers in the maturing mind.

Both the preparatory instruction and the final education-process were considered by antiquity to be procedures which must hold to principles of life.

The primary instruction-process had to be a process of common-sense digestion, which reduced individual observations and experiences to the fundamental workings of life and its consciousness; and the final education-process had to be a process of re-digesting sensible judgments, in accordance with the principles of life, elevated in the process of evolution to free-agency character-height. This proper instruction-process was represented by the character of the youthful Dionysos. But both these processes in the educational work of humanity were known to become, sooner or later, mere functional performances, and hence the characters of Silen and Dionysos were depicted as eventually degenerating, that of Silen first, that of Dionysos later.

The characterful doing power, in nature as well as in life, has discernment and determination in its endless work of assimilation and elimination, and because it has these, it has to-order-setting powers in the way of life.

The sensible knowing powers ignore such necessity of discernment and determination, and in fact, all requirements of the characterful doing-power. They withdraw the attention of thought from the consciousness of the causes which do the work in nature; and they direct it only towards the apparent effects of nature's workings, toward the adventitious interaction of these effects and toward the categorical ideas regarding them.

Historic civilization has been unfortunate in producing too many loud intellectuals who have misdirected the attention of thought, and who have substituted categorical term-knowledge for

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ILLUSTRATION No. 14.

THE CRAMMING PROCESS, ILLUSTRATED BY THE BALD-HEADED OLD SILEN, WHO CAN NO LONGER THINK IN NATURAL LINES OF THOUGHT. HE FIGURES HERE AS INSTRUCTOR OF MANKIND IN THE DEGENERACY OF THE DIONYSIAN REFORM MOVEMENT. WHEN DEVELOPMENT LOSES ITS INSPIRATIONAL HOLD ON THE POWERS OF LIFE, IT FORCES THE YOUTHFUL MIND TO IMBIBE IDEAS FOREIGN TO ITS NATURE, AND IT MAKES INSTRUCTION A MATTER OF MEMORIZING READY-MADE IDEAS AND OPINIONS, INSTEAD OF A NATURAL METHOD FOR THE DEVELOPMENT OF COMMON SENSE AND NATIVE REASON.

The instructive and educational branches in all intellectual and social development were thus conceived as having a healthful origin, a climax of healthful development and a stage of degeneracy, be they those of orthodox and conventional methods or those of unconventional reform-movements. In their healthful origin and development, both instruction and education were digestive procedures, which caused the mind to assimilate the work of thought in accordance with its living consciousness of the principles of life and of death. The modifications of life's conscious activities were considered as the raw material of knowledge, to be converted by thought and language into intellectual faculties. In the eventual deterioration and degeneracy of both the instructive and educational methods, memorizing of ready-made ideas was known to take the place of healthful common-sense digestion and reasonable re-digestion. Cramming ideas into the youthful mind always takes the place of sensible development and reasonable evolution of mental powers, when instructive and educational powers become functional performances. The mind learns to memorize words and stories, but it loses its power of digesting the original meaning of these words and stories and its ability to profit by these meanings. It is this fact which modern educators ignore, as historic educators always have ignored it, and because this fact is and always has been ignored, the world-process has become unknown. The principles of life and of death have not found recognition in the work of thought, and enlightenment has become a sham, a matter of superficial aspects of phaenomena-knowledge, of ready-made opinions.

the one-time character-knowledge of nature, embodied in organic language.

GOD AND SOUL-IDEAS.

The word "psyche" was at first conceived as denoting a physical and substantial character-power—a seed-energy—and not, as in later days and at present, as a non-substantial soul or imaginary entity.

The forgotten, old-time distinction between "dry and wet souls" is a distinction which it is necessary to make, for the soul or character-power in man is either sensible or reasonable; it is sensible if it can effect the proper adaptation to environment; it is reason-

ILLUSTRATION No. 15

THE FULLNESS OF SENSIBLE DEVELOPMENT OF MIND, HERE REPRESENTED BY THE MATURED SILEN, SUSTAINS THE BEGINNING OF REASONABLENESS IN THE INTELLECTUAL AND SOCIAL EVOLUTION. THIS BEGINNING IS HERE INDICATED BY THE DIONYSOS CHILD IN THE ARMS OF SILEN, WHO LEANS AGAINST THE TRUNK OF THE DECAYED TREE OF OLD-TIME KNOWLEDGE, PRESUMABLY THE KNOWLEDGE OF THE WORLD-PROCESS, AS THE SIBYLLINE SCHOOL UNDERSTOOD IT. THE VINE OF REASONABLENESS WINDS ITSELF SPIRALLING, ABOUT THE TRUNK TO ITS HEIGHT. THE CONSPICUOUSLY SINEWY LEGS OF SILEN DEPICT HIS FULLY EVOLVED, SENSIBLE UNDERSTANDING OF FACT, AFTER THE MANNER OF OLD-TIME ART.

It is from the present status of opinion-ridden development of mind that we wish to retrace the steps of mental evolution back to original Fact-knowing, when the knowledge of the world-process was made the foundation of intellectual and ethical endeavors, when PROCESS meant both physical and mental digestion of substantial modifications in nature, mind and thought, and when character was known to do the to-order-setting in the process of nature, in the process of thought and in the process of civilization. The understanding of the original gisty meanings of mythical and so-called sacred stories may bring modern thought to realize its own deficiencies. To arrive at an understanding of mythical stories is interesting to some minds, therefore the mythical characters are here introduced.

Young Silen, figuring as an educator in the way of physical sense-development, sustained the character of young Dionysos, who, when grown, figured as the educator or evolver of the reasonable tendencies in the human mind. The older Silen became the educator or mythical father of the intellectual Satyrs, to indicate that the physically sensible nature always tends to concentrate the attention of thought on the outwardness of things, and to generate ideas about phaenomena.

The Satyrs are character-personifications of the empiric physicists; and their counterparts, the Centaurs, are personifications of the dogmatic tendencies of mind.

In the educational schemes of antiquity, the Satyrs figured as the long-eared monkeys, who teach and preach their hearsay knowledge as truth to the world, and whose mental digestion-powers are like those of the horse, whose tail they carry, mainly physical in character. They represent that class of thinkers who attempt to deduce the world-wide laws of nature from special observations and experiences of phaenomenal changes.

able if it can do creative work and improve the determining character in man, so as to make civilization a success. Adaptation to environment alone cannot do it. Fully enlightened free-agency character must be evolved to enable mankind to do the right thing at the right time, to maintain the order of life in civilization.

When character fails, civilization fails, and character will always fail when it relies on its knowledge of the world without,

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They characterize the agnostic, dogmatic, empirical tendencies of thought, and they figure in Greek myth much as do the Fauns in Roman myth. The Fauns are the mythical representatives of the school of BOGUS REALISTS, who connect phaenomenal observations with general and particular ideas, and thereby carry intellectual corruption into the natural workings of mind, which antiquity represented as Nymphs. All these intellectual degenerates were mythically depicted as taking part in the THIASOS, to show that intellectual perversion is redeemable by appeals to sense and reason.

Almost all the great cults of antiquity entertained similar views of the difference between instruction and education, and of the influence of intellectual development upon social development, which are here explained under the mythical characters of Dionysos and Silen, although each cult had its own personifications, and its own way of depicting the career of these personifications.

The puerile mind attributes only profane meanings to these character-personifications, but in doing this, it gives evidence of its own undue intellectual limitations.

The birth-stories of Dionysos and Silen indicate the origin and preponderance of the one kind of educational influence over the other. Silen is the son of Mother Earth (Gaia) sired by Hermes, the genius of language, or by Pan, public sentiment, colloquially expressed; while Dionysos is sired by Zeus, the determining character on the intellectual Height, and prematurely borne by the dying Semele, who personifies the little reasonableness which attaches itself originally to the sense-development, ascending from the earthy nature of man. The Dionysos-child is matured in the thigh of Zeus; and reborn, he becomes the pathfinder of reasonableness, in his earthly career.

ILLUSTRATION No. 16

THE SECOND BIRTH OF DIONYSOS FROM THE THIGH OF ZEUS, DEPICTING THE REGENERACY OF REASONABLENESS, AS A REFORM-MOVEMENT IN THE PERFUNCTORY ADHERENCE OF THE AGE TO THE ZEUS CULT. TWO EILEITHIANS, INTELLECTUAL MIDWIVES AT THE BIRTH OF NEW IDEAS, REPRESENTING THE WORLD'S INSTRUCTORS AND EDUCATORS, HOLD UP THEIR OPEN HANDS, SHOUTING "JOY TO THE WORLD" (HOLOLYGE), OR PERHAPS SINGING A SACRED MELODY (HIERON MELOS) "UNTO US A CHILD IS BORN," FOR INSTANCE. THERE IS JOY AMONG THE INTELLECTUALS AT THE HOPE OF REDEEMING THE DEGENERACY OF THE PEOPLE BY A REFORM-MOVEMENT. HERMES STANDS READY TO COMMUNICATE AND INTERPRET JOY TO THE VULGAR MIND. THE COUNTERPART TO THIS PICTURE OF INTELLECTUAL ENTHUSIASM ABOUT REFORM-MOVEMENTS APPEARS ON THE OTHER SIDE OF THE SAME AMPHORA, SHOWING THE BEARDED DIONYSOS GOING TOWARD DEGENERACY, BETWEEN TWO FAUNS, THEREBY ILLUSTRATING THE INEVITABLE FAILURE OF OPINIONATED REFORM-MOVEMENTS.

and renders itself oblivious of fundamental reasons and necessities.

Therefore held antiquity that the sun-descending soul or character—the dry or solar soul—is better than the wet or earthy

ILLUSTRATION No. 17

THE DOUBT AND HOPELESSNESS WITH WHICH ANTIQUITY CONSIDERED ALL REFORM-MOVEMENTS, INSTIGATED BY THE HALF-BAKED INTELLECTUALS IN CIVILIZATION, IS HERE DEPICTED. THE GOAT ERYTHEIS (?), REPRESENTING ACADEMIC OPINION, NURSES THE DIONYSOS CHILD. THEOLOGY APPEARS UNDER THE MASK OF AMMON (ZEUS), AND EMPIRIC SCIENCE UNDER THE MASK OF A FAUN. IN THE CISTA MYSTICA OR ACADEMIC TOOL-CHEST, APPEARS THE SERPENT OF 'OLOGIES AND 'ISMS. IN THE FOREGROUND IS SEEN THE HERME OF PRIAPOS, THE PROPAGATOR OF LEARNED OPINIONS, AND AT THE RIGHT SIDE PAN (PUBLIC SENTIMENT) TURNS AWAY FROM THE SCENE WITH A LOOK OF DISTRUST OR DISCONTENT.

ILLUSTRATION No. 18

THE LAST THIASOS, MYTHICALLY DEPICTING THE FAILURE OF ALL REFORM MOVEMENTS IN CIVILIZATION, WHICH DO NOT PLACE INTELLECTUALITY ON A FULL AND FAIR KNOWLEDGE OF NATURAL CAUSATION IN THE WORLD-PROCESS. DIONYSOS AND SILEN, THE PRESUMABLY REASONABLE EDUCATOR AND SENSIBLE INSTRUCTOR OF MANKIND, WITH THEIR FOLLOWING OF OTHER INTELLECTUAL DEGENERATES, ARE ENTERING THE HOUSE OF THOUGHT-MADE SYSTEM, WHERE ICARUS (SELF-SUFFICIENT THOUGHT) AND HIS INTELLECTUAL HETAERA FEED THE MIND ON ARTIFICIAL PRODUCTS OF THOUGHT.

THE ERRING INTELLECT CAUSES THE CALAMITIES AND FAILURES OF CIVILIZATION. ITS REFORM MEASURES MUST ALWAYS MISCARRY IF IT DOES NOT REFORM ITSELF. TO REFORM ITSELF MEANS TO ARRIVE AT AN UNDERSTANDING OF NATURAL CAUSATION AND A KNOWLEDGE OF THE WORLD-PROCESS. INTELLECTUALITY HAS NEVER YET SUCCEEDED IN KEEPING PACE WITH THE TIMES, AND THEREFORE HAVE ALL GREAT CIVILIZATIONS BEEN BROUGHT TO UNTIMELY DESTRUCTION.

All mythical stories have an educational character. Myth literally means: The mother-consciousness of the thinking consciousness; and education to antiquity meant: The evolution of this mother-consciousness, by virtue of language, into any and all forms of the thinking consciousness, especially in as far as that thinking consciousness represents the process of life and of death, and its principles.

soul. The wet, ascending substance furnishes the material for body and sense, and for hidebound character; the dry or sun-descending substance furnishes the material for the body-inhabiting character—the world-to-order-setting character.

The living character-powers were represented by various words, denoting causes of activity, or by names denoting the causes of active, so-called divine or heroic character; but these words and names lost their original meaning; they deteriorated into all kinds of absurd meanings, and these generated all sorts of visionary ideas about natural causation. The names given to the one-time character-consciousness, the so-called God-consciousness, came to designate merely visionary God-ideas, and the word "soul", once full of active meaning, deteriorated into a meaning-

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ILLUSTRATIONS 19, 20 & 21

THE CHARACTER-WORK IN LIFE, MIND AND THOUGHT, IN ACCORDANCE WITH THE PRINCIPLES OF LIFE AND OF DEATH.

The cuts 19, 20, 21 represent the character-crests of three ancient American cities, Orizaba (Achuilizapa), Atenco and Atotonilco. These crests symbolically represent the procedures of life and of death, which characterize the process of life, and which must be understood by the thinking ego, in order to make its work in civilization a success.

All three ideograms show the fourfold procedure from character-power or character-centers in the workings of nature, for all deal with the subject of actions, reactions and their counter-actions in life and death. Two of these procedures in all three cuts are represented as of the circling, (predominantly sympheromenal) kind, while the other two are shown as of the radiating, (predominantly diapheromenal) kind, as we may note by the ends of the four branches on each of the three ideograms, two of them always having the form of circles, while the two others have the form of radiating pointers, thus depicting bi-polarity and double-activity twice, as it actually occurs in the natural workings of character-centers.

The circles, at the end of extended arms, represent the collecting and solidifying procedures in nature's sewerage-system, while the radiating flame-like ends of the arms represent the penetrating, disinfecting and dissipating procedures in the same system; and in as far as these two sewerage procedures are double-active and therefore counter-procedures, moving toward and away from extreme poles, in so far do they both, first: receive sewerage-substance from life, and secondly: restore it to the way of life—to protoplastic states of substance.

The idea embraced in these three ideograms, as in any number of other American ideograms, points to the NECESSITY that the human character-power, active in the control of civilization, must have a thorough understanding of the four bearings of any and every act of nature or of man, every action having its reaction, and both action and reaction being accompanied by subservient counter-actions, or being performed at the expense of something which is subserviently engaged.

less, inactive, useless nondescript, born of unnatural ignorance in the workshop of self-sufficient thought.

This way of looking upon difference in dry and wet character is very important, as upon it is founded the difference in the manner of nourishing mind and body by the process of digestion, to which we will come later; — bread and water to nourish the body, and wine to nourish the mind.

THE STEPS OF EVOLUTION

Antiquity knew that all new life is made out of the offal of old life; and this restitution of life's offal it knew as a gradual

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The fourfold procedures are a matter of FUNDAMENTAL PRINCIPLES, which should never be ignored or treated in a slipshod way, for they enter of NECESSITY into every act of daily life; they underlie the process of reasoning from cause to consequence.

Education should make known the workings of fundamental principles above all other things. If the mind is not taught to think in accordance with these principles, then it cannot carry its good intentions to a successful ending.

Our millionaires, animated by the best of intentions, may endow churches and universities, but when these institutions ignore the fundamental principles, they cannot train the mind in right-thinking and right-speaking, and hence they cannot properly prepare it for the civilizing work. The way in which they do prepare it leads to confusion of ideas and counter-active endeavors in the intellectual conduct of human affairs; and this is done to the detriment of human welfare. When principles of life and of death are not made clear by education, then the powers of NATIVE REASON cannot be evolved so as to determine the right and wrong in human affairs, and to check the evil of counter-active endeavors. For this reason, the best intentions of our most generous millionaires come to miscarry.

Fundamental principles of procedure give every act in life a fourfold bearing, which must be understood in order to foresee what is coming—in order to foresee that certain consequences will result from a certain course of procedure.

When intellectual, political or financial leaders in civilization determine upon a certain course of action, they must consider, not only the resulting reaction, but also the two counter-active accompaniments, at the expense of which they proceed. Upon this fundamental necessity the sibylline school at all times insisted, all over the earth, and ancient American civilization seems to have entertained similar views; it seems to have fully realized that inconsiderate, slipshod work will not do in maintaining the order of life in civilization.

Illustration 19. (Orizaba-Achuilizapa) means briefly: "All hail the joy of evolving free-agency power or living as a free-agent—building fairly and squarely on the necessities of life."

Illustration 20. (Atenco—water-in-the-mouth) means briefly: "Right-speaking is the guiding-thread to right-thinking and right-doing." This may be in direct opposition to the modern academic view, which holds that right-thinking is possible without the proper use of language, which controls the thinking power; but antiquity knew better than does modern learning, and it firmly held to its consciousness of the creative work which language did in elevating man above the animal. It esteemed and deified the so-called WORD above all other things. It knew too well, through long ages of sad experience, that the delusive use of language destroys the civilizing power of mankind. It knew that hollow, characterless talk had been the great destroyer of great civilizations in all ages.

I have partly explained Cuts 19 and 20 in my "Introduction to Errors of Thought" and I reproduce them here only to illustrate the fourfold procedures of character and the double activity of both the elementary counter-tendencies or forces, which it is difficult to represent intelligibly by words merely.

counter-procedure between the two poles of death, the positively collective and negatively distributive earth, and the positively distributive and negatively collective sun. It knew this counter-procedure to move in steps of disinfection, on the one hand, and dissipation, on the other hand. It knew that these steps were characterized by ferment-centers, beginning with what we now usually consider as chemical changes, making for low microbe-life, and going into higher and higher stages of organic life, from the one side; and similar steps of heat, light, warmth, electro-magnetic ferment-centers, etc., from the other side. It knew that

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"Water-in-the-mouth" speaks from the consciousness of feelings, and embodies the consciousness of life in words. The symbolic meaning of this ideogram corresponds to the old and almost forgotten Hebrew as well as Greek idea of "Home of the Jawbone—Bethphage—whence spring the waters of life and the consciousness of feelings".

The meaning of this ideogram also connects itself with the suppressed Scriptural ideas of "double-well", as also with those of "the ass's colt", the "jawbone of the ass", the DOMUS ASINI, meaning the "home of truth is in the jawbone of the mythical ass" —in the mind of the masses, who bear the burden of social misgovernment;—VOX POPULI, VOX DEI.

Our Socialists and Jingo democrats carry this idea to extremes. This the ancient Americans do not seem to have done, although in this case they have made it the character-crest of one of their cities, but in doing this, they have also connected it with the needed understanding of fourfold procedures, of action, reaction and counter-action, an understanding which the modern Jingoes lack and the necessity for which they ignore, as also do the people.

The verbal pictures and scriptural stories above alluded to, may appear to refer to very different subjects; they do have different bearings, but they all stand connected with the one germ-idea: Use the thinking faculties in the care of feelings and in the elucidation of living consciousness. Make thought form an inseparable union—DIATHEKE—with the creative powers to which life, mankind and civilization owe their origin.

Atotonilco (illustration No. 21) has been verbally translated as "hot spring" or "hot bath." Its symbolic meaning, as a sacred vessel, standing on a three-ball footing, and producing elementary growth (in consciousness) of the fourfold principles of procedure in nature's double activity, refers to the necessity of knowing nature's undercurrents, in order to secure the ability of forming full and fair judgments regarding the right and wrong in the thought-determined activity of man.

The literal meaning of "warm water" seems to refer to the compound of life and of consciousness, as resulting from the union of sun-descending and earth-ascending substance; it unites the hot and dry with the wet and cold ferment-germs in non-vital activity, thereby producing the character-germs of life, and through them, all products of life.

The three balls upon which the sacred vessel stands, if interpreted in accordance with the customs of sacred art in antiquity, would indicate a threefold knowledge of Fact, that is, a knowledge of the three strands in the chain of natural causation. If this be so, then the symbol, as a whole, would mean that the people of ancient Atotonilco had properly and fully intellectualized their elementary consciousness, and that they were not of the "half baked", intellectual type, which antiquity knew as deluders of judgment and evil-workers in civilization.

The ancient Americans used aphonic sign-language in strict accordance with the elsewhere prevailing rules in sacred iconography. They often used even symbols identical with those of Asiatic art, and they did remarkably intelligent work.

low organic life served to prepare the food for higher organic life, the higher organism naturally living on the lower organism. Life of low character naturally nourishes life of higher character; low life naturally feeds and sustains high life; and high life therefore cultivates the propagation of low life. Man plants the land and causes animals to breed, to secure the life that serves him. Even civilization itself is often made a mere farm of the many toilers, serving the few who control it.

ILLUSTRATION No. 22

THE INGOT-CROSS, DEPICTING COUNTER-TENDENCIES AND CAPACITIES OF ATOMIC CHARACTER IN LIFE OR DEATH — IN MIND OR MATTER.

This ancient American ingot-cross symbolizes all atomic activity, but particularly the original knowing-powers of the human mind, its focus being a human face. It can serve to elucidate the fourfold counter-procedures in atomic activity throughout the universal fermentation-process — the process of life and of death — although it it here given a particularly human character. Its inner circle, enclosing the human face, suggests the individuality of the self-conscious character-focus of the human knowing-power, through which the universal undercurrents pass, and by which they are partly assimilated and partly eliminated, nourishing the focus of mind in universal, elementary ways, as represented by the four-armed cross, which surrounds the inner circle.

The arms of the cross were conceived by the ancient Americans to be double-active, and circling in opposite directions about their center, as shown in a previous picture, No. 10.

The human face in the above illustration takes the place of the human digest-center, shown in the former cross as an approximately human figure, with a large stomach. In that illustration the circling and radiating procedures — the diapheromenal sympheromenal movements — are depicted by the outward-reaching flame and by the inward-bent circle, which form the elbow-bends at the arms of the cross. In the above illustration, the subject of circling and of radiating is not so plainly illustrated, but is indicated only by the three pointers at the end of each arm, two pointing in lateral directions and one in the radiating direction. These pointers suggest a tri-unity of fundamental powers of mind, and they hint at the further evolution of these powers, at the subject which ancient art depicted by Triads. In the case of this cross, only the elementary kind of branching is depicted, only that of common sense, native reason and determining power. This branching must be distinguished from that usually depicted by Triads, which refers to a further branching, that into special reason, special sense and determining power.

The cross in the above illustration is surrounded by an inner circle. Four ingot-signs extend themselves between the arms of the cross, to represent the four ingoing counter-procedures of the material, bodily consciousness, as in part interactive and in part counteractive to the outgoing procedures of the substantial or characterful con-

Thus, the restitution of sewerage to life was conceived as a gradual step-procedure, which we now ignore, and should consider as elementary evolution.

Antiquity knew evolution only as steps from death to life, and from low stages of organic character-germs to high stages of organic character-germs, and these steps were taken only in the universal fermentation or digestion-process.

Digestion was known as producing both body and mind, hence digestion was considered the one important factor in civilization, a fact which should be thoroughly understood.

Antiquity knew both planetary and solar activity as two opposed phases of digestion or fermentation of substance; the solar fermentation being of the rapid, dissipating, negative type, and the planetary fermentation being of the slow, assimilative, posi-

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sciousness; or in other words, the counter-activity of what we might call spiritual or characterful, in distinction to bodily knowledge, or self-consciousness interacting with the consciousness of feelings surrounding it. The eight outer ingot-signs in the same circle represent ideas similar to those in the Pa-kua; that is, the organic workings of living consciousness, circling through the Way of Life.

In the Pa-kua the original, inner workings of self-consciousness are not shown, as in the above illustration, but they are transferred to the solid lines, representative of organic character and its determining power. In the above cross-design, the special development, shown in the Pa-kua, is not shown. These two ideograms — the Pa-kua and the cross above depicted — should be studied together to get a complete idea of mental analysis and the workings of consciousness.

The above cross-symbol does not go far into branch development; it represents only the original character of the human knowing-power in its four elementary counter-procedures and eight consequent branchings.

The outer circle, which surrounds the ingot-circle, represents the world without. Other ancient American cross-designs and ideograms go very far into mental branch-development.

The circling counter-procedures, which accompany the four radiating counter-procedures, are not clearly shown in the above ideogram; they are only indicated in a general way by the placing of the cross in a circle, as was usually done in the sacred art of antiquity; but the cross in Illustration No. 10 is more explicatory of these radiating and circling counter-procedures. These latter procedures are very important, since they are mainly instrumental in producing the enclosures to cell-centers — the housings — the tissue to the embodiment of vegetable and animal life.

The circling movements form a unit with the four outgoing and incoming counter-procedures, hence they must be studied as a whole, and as characterizing any and all phases of the universal fermentation and digestion-process.

The symbol of the circle in the cross has been a very important factor in the evolution of language and of intellectuality. The analytically working mind is very apt to separate the circling motivity from the radiating motivity in the workings of nature, and thereby form one-sided, abstract and fragmentary ideas of nature's activity, which deceive the reasoning powers of the mind. To avoid this deception, the Brahmins have constructed their praying-wheel.

tive type. It distinguished these two extreme types of fermentation in all changes of matter, all things being bi-polar and hence double-active; and this way of conceiving fermentation is the only way in which a true idea of it can be obtained, or, in fact, of the causes of any phaenomenal changes.

ILLUSTRATION No. 23

ILLUSTRATION No. 24

TWO ETRUSCAN JACOB'S LADDERS, here produced only to keep before the mind the subject of steps in character-evolution. All ancient cults used Jacob's ladders for the purpose of illustrating this subject. The study of Jacob's Ladder symbols and stories facilitates the study of steps of evolution.

Steps of evolution in antiquity referred to risings and recedings of character; and these risings and recedings are an entirely different subject from the distinction which modern evolutionists make in degrees of evolution; these degrees refer only to differences in outer organic appearances.

The Etruscans seem to have been thorough and practical Fact-knowers, who had little faith in the evolution of human intelligence by ways and means of instruction and education. They looked upon intellectuality as a cause of delusion, hence they caricatured the Jacob's Ladder symbol, as above shown. These ideograms need much explanation, which can only be given after the elucidation of the world-process and the old-time conceptions of it.

Fig. 23 depicts the Jacob's Ladder or symbol of evolution, as surmounting a mask — the mask of truth, which conventional intellectuality places upon the natural knowing-powers of living character. Hence this ideogram suggests that the conventional intellect, as a character-evolver, is a sham.

Fig. 24 shows a human head, bald and long-eared, with a gloating expression of face, as the character-center of the Jacob's Ladder.

Baldness always refers to the loss of mental power to think in natural lines of consciousness.

Long ears suggest earborn, acquired sense-knowledge, in distinction to nature-born character-knowledge, founded in living consciousness.

The gloating look on the face depicts the admiration which self-sufficient thought has for its own imaginings.

The boy-genii of Speaking Thought, gamboling about the intellectualized head, indicate that the artist aimed to ridicule the claims of intellectual evolution.

The cause of evolution is a mental character-power; it is a power in the human mind as far as intellectual and social evolution is concerned. It is this character-power in the human mind which the above caricatures were intended to ridicule. The Etruskans saw their civilization go from bad to worse; they saw that evolution was advancing in retrogressive steps, making for intellectual and social degeneracy and decay. They had sense enough to know what modern thinkers do not always

Antiquity, in its thorough-going way of thinking, thus considered the solar and planetary interaction, as a whole, as one universal fermenting process, in which all things were constantly changing, by reason of different ferment-germs, which had their origin in individual focalization of the changeful predominance and subservience of universal and counter-active tendencies and capacities, characteristic of all substance.

Antiquity only knew one substance. To its viewpoint, the sun was made of the same substance as the earth and everything in or about the earth, but it knew that one substance to have various counter-active characteristics of mobility and motivity — of mobility in death, of motivity in life. These characteristics it knew to be productive of changeful character-foci or ferment-germs, ranging from the hottest and dryest to the wettest and coldest, in the cyclic procedures of sewerage-substance, from sun to planets, from planets to sun; and these character-foci it considered as the active causes of all phaenomenal changes in the apparently inanimate substance, ranging from solar fire to planetary solidification. The changefulness of character-foci it knew to underlie the changefulness in phaenomena. It knew that the special senses of the human mind could only take special and fragmentary note of the phaenomenal changes; while the inner, living and self-conscious power of man's mind could understand and comprehend the inner character-activity, productive of the outer changes.

There is a knowable reason why the character-centers in sewerage-substance undergo changes in their counter-procedures from sun to planets, from planets to sun; and this reason is to be found in the atomic bipolarity and counter-activity of all substance. All character-centers in life or death are atomic foci, which act in ac-

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realize, viz., that the free-agency power and character must be properly sustained by gisty fact-knowing to make civilization an enduring success. Sham-intellectuality, hollow word-knowledge, scientific theories and moral 'isms are the insidious enemies of mankind; and ridicule is the most effective way of dealing with them.

The many diagrams which have come to us from Etruskan civilization indicate how thoroughly the Etruskans realized that government by opinions must always result in the failure of civilizations.

Opinions are not gisty judgments, based upon a thorough knowledge of Fact and of natural causes; they are one-sided, fragmentary, biased ideals, which stand detached from the understanding of fundamental necessities of life. Nothing can equip the mind with ability to form gisty judgments of Fact, excepting that development and evolution of living consciousness and original knowing power which embody in words the full knowledge of the eternal chain of causation in the world-process; and this fact the Etuskans realized, but do not seem to have had the ability to remedy, and avoid the common fate of national decay and destruction.

cordance with the fundamental principles; all are bipolar; all alternate in polar activity; all divide their substance, or the substance passing through them, in four ways, that is, first forward and backward in the line of their movement—in their cyclic course of procedure—and secondly, also toward each side of the main movement. (See illustration of electric currents.)

As atomic activity divides its substance, so does it take in substance to be divided from four sides, that is, it assimilates and eliminates substance through the alternating activity of its poles, be it in the rapid motion of light, heat and electricity, or in the slow movements of changeful aggregations of earthy matter.

THE NATURE OF PERCEPTIVE FACULTIES

All existing things are composed, first, of double-active matter in changeful states of aggregation, and secondly, of extremely rarefied substance, also double-active in penetrating these states of aggregation.

All aggregations of matter have an activity of their own, which interacts with and in part counteracts the activity of the rarefied substance passing through them.

The material activity has its visible or patent, and its invisible or latent changes, only because it acts in connection with the substantial activity in the undercurrents of material existence. These invisible undercurrents make the material world visible and knowable; they make the senses interact consciously with their environment; they make the activity of unconscious matter knowable to the conscious mind in the material body.

If we want to know why the material world appears to our senses as it does, we must study the counter-activity in elementary undercurrents—pheromena—in its connection with our faculties of perception.

The senses enlighten us with regard to phaenomena; the living self-consciousness can make us understand and comprehend why the senses interact with their environment as they do, and why, so interacting, they can convey information, with regard to phaenomena, to the thinking mind. These questions of "why" can only be answered by the elucidation of the substantial undercurrents which pass through every existing thing, and connect the organs of knowing with the knowable objects. Everything of material existence is surrounded by a diapheromenal sympheromenal field, and is being penetrated by the counter-active forces in this field; and this penetration produces changes in all character-foci, in ac-

cordance with the elementary principles of life and death, the principles which govern the fourfold assimilation and elimination in the processes of fermentation and digestion. The mental activity is controlled by the same principles by which the material activity is controlled, and therefore the material activity becomes knowable to the mind.

The double-activity within the character-centers of the organs of sense, by interaction and counteraction with the double-activity of the character-centers within material things in the environment of the senses, produces all sensations. The invisible undercurrents of rarefied substance are the media which enable the mind to act into distance, and make it possible for the senses to communicate their interaction with environment to the center of self-consciousness in the individual mind.

ILLUSTRATION No. 25

ILLUSTRATION No. 26

The microscopic view of the eye of an insect shows the multiple sight or character-centers which gather, focalize, assimilate and eliminate the substance of light, and transmit the result to the conscious determining power of the insect.

The substance of light is not matter in any tangible state of aggregation; it is a certain character-activity in the imponderable undercurrents which penetrate material existence. Its focalization and digestion in the sight-center or character-center of the eye may be only an irritation to the work done in the centers, such as salt produces in the working of the stomach; but even this mere irritation is a phase of the digestive work done in character-centers. It is the special character of the eye which prepares the character of the incoming light in such a way that it becomes a source of knowledge to the living and determining mind-center.

THE BRAHMANIC IDEA OF EVOLUTION OF HUMAN CHARACTER TOWARD FREE-AGENCY HEIGHT appears represented here, as often elsewhere, by a Turtle-tower, No. 26. This turtle-symbol is placed inside a triangle; the base of which denotes the understanding of substantial undercurrents. The lateral lines of the triangle are brought to a point, to denote that the sensible and the reasonable development of the intellect must be brought to a determining point. This design belongs to a series of ideograms which require lengthy explanations. "Turtle," used as a glyph, signifies the elementary embodiment of individual character-power in its "housing," and its capacity to proceed in the way of evolution, in accordance with fundamental principles.

The whole design represents the power of the Trimurti-consciousness to evolve free-agency knowing and doing powers in man.

The process productive of sensation is in principle a digestion-process. It may be easily understood that the sensations of seeing, smelling, tasting etc., are the effects of some kind of physical absorption, which may justly be considered a phase of the digestion-process; but even the simplest sensations, those of hearing and touch, are the result of absorption and digestion. The waves of sound, as well as those of sight, when touching the organs of sense, produce an interaction in the character-centers, by virtue of the undercurrents; for instance, in the case of touching an object, which produces sensations of warmth or cold, the undercurrents, passing from the character-centers of the object touched into the character-centers of the organs of touch, are the active causes of the sensations produced. Some things feel hot, some cold, to the sense of touch, under the same atmospheric conditions. This feeling hot or cold is the result of interacting character-centers without and within the sensive body, and these character-centers can only interact through the medium of the diapheromenal sympheromenal currents.

There are no merely mechanical sensations. All sensations are modifications in the world of feelings—of living consciousness. Joy and sorrow, hope and fear, sympathy or antipathy, enthusiasm or horror, are all results of changes in character-foci, and so are the sensations which serve as means of communication between the character-centers in the world without and those of the mind within.

The character-centers within the bodily tissue are not nourished merely through the agency of the stomach and digestive organs; they are nourished also from the **periechon**, the protoplastic field in which the diapheromenal sympheromenal undercurrents are active.

The activity of the **periechon** is an interesting subject. Substance comes into the environment of the earth from the sun, and also from the exhalations of the earth; thus the **periechon** or earthy atmosphere, as we will call it for the present, is a mixture of the hot and dry and cold and wet substance, characterized by the atomic centers of activity; and these centers are digest or ferment-centers; they assimilate and eliminate constantly. The substance which the sun dissipates,—the sun-descending substance —moves in opposite direction from that which the earth exhales—the earth-ascending substance. Hence there takes place a counter-procedure, and this counter-procedure is characterized by changefulness in character or ferment-centers, known to antiquity as **enantiodromia**, i. e. the carrying of changeful character-centers upward and downward and round about the planetary and solar poles in sewerage-activity.

The enantiodromia deserve much attention; their elucidation can revive the natural understanding which the mind has of the active causes, productive of physical changes. It is important to know just how and why counter-procedures and changefulness of character-centers produce protoplastic and bioplastic matter. A few hints with regard to this most important matter must suffice for the present.

The character-centers in the undercurrents of existence are bipolar and biaxial in their tendencies and capacities, as partly explained in the Tai-kih diagram, No. 9. They have red and blue, or masculine and feminine tendencies and capacities; these tendencies exist primarily in that substance which is far removed from the Way of life; and they are transmitted and transformed into actual capacities of protoplastic matter. This conversion of tendencies in sewerage into active capacities of protoplastic matter, due to changefulness in counter-proceeding character-centers, is effected in the fermentation and digestion-process in the following way. That which the red tendencies and capacities in atomic character-centers need for their support at one moment is that which the blue tendencies and capacities in another character-center have eliminated as not needed, for that moment; and as the polarity in the character-centers changes, so changes the need of assimilation and elimination.

Waste in the sidereal ferment-process is only waste for a moment. The constantly alternating assimilation and elimination, and the division of substance in character-centers, as well as the second periodic self-division of red and blue tendencies and capacities, use all substance in their four different procedures, always making waste and using waste. The capacity, which appears as light at one moment, becomes an invisible tendency at another moment; that is, invisible to the senses; for the character-centers in the organs of sense can deal only with the dominant capacities in the character-centers of environing matter. Therefore a streak of electricity is apparently and actually composed of a string of individual electrons. Electricity and magnetism are in reality only alternating counter-procedures. What the positively atomic pole at one time assimilates and sends onward, that the negative pole in some other active atom had previously eliminated and sent backward, and vice versa; for one pole prepares substance for the work of the other pole, in one way, and alternating, it prepares it in another way, each pole being double-active and, in the cyclic course

of procedures, each reversing its own activity, as may be clearly seen by examining the digestive work in elementary cell-life and its self-division.

These many simultaneous and successive changes in the universal process of fermentation need to be considered, not only in the back and forth and roundabout of sewerage-work, but also in the ups and downs and downs and ups of life's counter-procedures, for the working of sewerage-substance is only a preparatory stage to the workings of living substance, and both act and interact at all times within character-centers and without the housings of character-centers, by reason of the substantial undercurrents. The views which the mind can take of the within and the without of nature's work, antiquity had united into one comprehensive knowledge of development and envelopment, of evolution and involution, all determined in the changefulness of character-centers, all occurring in the one substance of existence, all originating in the changeful bipolarity and double-activity of character-centers in universal substance and in individual or special aggregations of matter.

If we can make this bipolarity and double-activity clear to ourselves, we can understand the one connection which all phaenomenal changes have in the eternal chain of natural causation.

Of bipolarity we know but little at present; of double-activity we know less and of cyclic counter-procedures next to nothing. To depict these subjects in detail, in all their constant changefulness, by analytic language, would be a lengthy and wearisome undertaking; we will have to do it in a fragmentary way, and leave the studious mind to work out its own details while studying the few explanations and illustrations here given as bearing on the subject, and remembering the isolated and fragmentary statements here made for the purpose of elucidation. The study of magnetism, of electricity, of polarization and refraction of light, of the growth of elementary cell-life and its self-division, when explained, should furnish enough detailed elucidation to make the world-process known as one complete fact to the mind which can learn to digest evidences, first, in a common-sense way, and afterwards in a reasonable way.

Sewerage-substance may be said to develop mainly on the level of cyclic counter-procedures, circling about and through the poles of opposite bipolarity, while evolution may be said to rise in semicycles, above and below the level of sewerage-development; above, to go into the evolution of self-conscious, organic character, step by step; below, to go into the involution of self-conscious, organic character and its conversion into seed-energy, and again out of it into organic character.

Antiquity so depicted the subject by armillary models, upon which modern thinkers look only as representative of the sidereal process. But in fact, these armillaries were designed to explain the development and evolution in life and death, from the sidereal process, or process of nature, to the intellectual process, and through it, to the process of civilization. All these three phases of the world-process being governed by the same fundamental principles, all could be represented by the same diagrams, and should be so represented.

Let us remember that all things, by reason of atomic activity, divide their substance in a fourfold way, and prepare it so that it eventually, if not always, makes for the three-fold development into Height, Depth and Extent. Things, in their development and evolution, do not move on the same level only, describing merely

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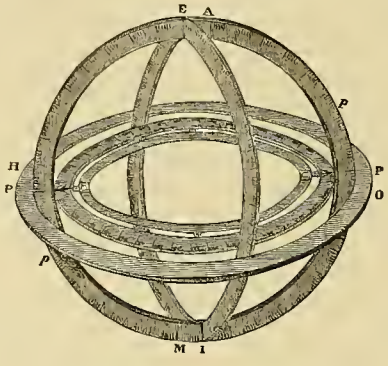

ILLUSTRATION No. 27

The most primitive and unsatisfactory form of an armillary, by means of which antiquity aimed to arrive at an understanding of the workings of nature, mind and thought, and which historic thinkers imagine to have been of use only in explaining the sidereal or star-gazing process.

The best armillary is in Pekin, China. I have elsewhere produced a picture of it, and have there attempted to explain its original use and meaning. The above illustration is here produced only to draw the attention of thought to the fact that antiquity knew nature as a process, and knew that her elementary workings assumed a spherical form by reason of activity in atomic character-centers. Knowing this fact the Greeks made the SPHAIROS the archetype of cosmic order.

The two inner, horizontal circles represent the cyclic counter-procedures in all development and envelopment of tendencies and capacities, or forces and powers in nature. The outer, horizontal circle represents the preceptible changes in cycles of development.

The vertical circles refer to the risings and recedings in the evolution of character-power; its rising into organic Height and its receding into Depth of seed-energy; and also to the cross-cutting of the highway of life by the byways of sewerage-making. The framework, as a whole, is an imitation of the Sphere as the archetype of life.

horizontal circles or cycles, but also up and down, making for spherical form, and this form is therefore the archetype of all things. This archetype has biaxial tendencies and capacities, and each axis always has two poles and is double-active at each of these poles; it is both selective and rejective in changeful, alternating ways, assimilating and eliminating at the same time, and reversing the order of assimilation and elimination periodically in the cyclic changes. These changes occur in all fermentation and digestion, in death, as well as in life. Let us remember that the pole which appears to have positive activity has also negative activity, which does not appear—which is latent, not perceptible to sense-observation—and that that which appears positive at one time changes character, by cyclic procedures, and comes to present a negatively active appearance, but the negatively active appearance has also a non-apparent counterpart, a latent tendency, which, in the cyclic course of things, becomes a dominant capacity. These changes of polarity produce the change of character in atomic crossing-points, which antiquity knew as metaboling, and this metaboling is a continuous occurrence in cyclic changes, running from pole to pole, and so running, it produces certain different character-powers of diametically opposed activity at the beginnng and end of each semi-cycle. That character which makes for solar activity and fire at

ILLUSTRATION No. 28

THE SPHERE OF HELIOS AND THE PEACOCK OF ABSTRACT INTELLECTUALITY

An ancient design, intended to depict the difference between flat aspects of fact and the full consciousness of Fact — between phaenomena-knowledge and thorough nature-knowledge — between visionary, bogus reality, opinions, theories, etc., and gisty judgments connecting themselves with a knowledge of the world-process and the fulness of elementary consciousness.

The design consists of three parts, the square base, the sphere and the peacock.

The upper and lower squares of the base denote the fourfold workings of common sense in both the living consciousness of man's nature and in his thinking powers.

one point in the cycle of its development makes for planetary activity and solidification at the opposite point in its cycle of development—at the end of the semi-cycle. This carrying of changeful character-powers (**enantiodromia**) from one extreme to the other, takes place, not only in the cyclic development of solar and planetary substance, but also in the cycles of life's evolution, which

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The sphere represents both the ideals which the Greeks called SPHAIRA and that which they called SPHAIROS; that is, both the phaenomenal roundness of the archetypes of nature's activity and the workings of the causes which produced this roundness. The earth was known to be a sphere in antiquity, and the causes which made it a sphere were also known; these causes were known thoroughly in their entirety as the endless or golden chain of eternal causation, consisting of atomic links or character-centers, in spherical housings enclosed; therefore the idea of SPHAIRA was made expressive of the outer form of the units in natural causation, and the idea of SPHAIROS was made to convey the character-power in the SPHAIRA. Both refer to the archetype of existence in all its phases; in life, mind and thought, as well as in the universal sewerage-fermentation. The sphere was the ideogram of the idea—the all in one, the one in all;—therefore the SPHAIROS-idea of antiquity in general and of Empedocles in particular.

The narrow band encircling the sphere represents the plane of the equator in the then known revolution of the earth; and the wide band that of the ecliptic.

The inclinations of these two bands were known as the natural causes of ENANTIOTROPES, in the widest meaning of the old-time word.

The crossing-points of these two bands were considered the one thing by which the thinking mind could hold to the changefulness in the chain of natural causation, and which enabled it to form gisty judgments of Fact — of nature's changeful activity.

The proud peacock figures in this design as the bird of intellectuality, and perhaps also as a persiflage on the mythical dove-idea.

The partly intellectualized mind is wont to look at nature's work and workings through the sightless eyes of self-sufficient thought, and to take flat, showy, theoretical views of the natural fullness of Fact.

Self-sufficient ideaiity in antiquity, with its theories and 'isms, surmounted the natural konwledge of the world-process and of the one law of nature's creative activity, as well as it does in our age.

The above illustration is an educational ideogram; it depicts the difference between hypotheses, theories, opinions, etc., and gisty judgments. The knowledge of nature, derived from outer observation and experience, such as is that of modern learning, is depicted in the intellectual peacock, while the knowledge of atomic activity is represented by the sphere of Helios.

The peacock's tail-feathers represent the galaxy of 'ologies, and those of his crest represent the 'isms, — the moral determinants in the intellectualized mind.

The sphere of the chthonic Helios represents the sum and substance of atomic mobility and motivity throughout the universe, being a condensed form of the armillary.

The louder thinkers of antiquity did not usually believe in the knowability of the eternal chain of natural causation, nor in the possibility of acquiring full free-agency powers; they did not believe that the sun was the center of the planetary system, nor that the earth was a sphere and moved with the other planets about the sun, facts then known to some thinkers. Not having a thorough insight into Fact, not understanding the use of the armillary to make known inner causation, they supplanted it by the Globe of the chthonic Helios, which to them was only symbolic of the pretend-

moves from simple, individual seed-energy in the depth of existence, into organic powers and complexity, into the height of character, and back from that height into the depth of seed-energy.

That character-power which is positively active at one point in the cycle of development is negatively active at the opposite point in the same cycle; its dominant capacities having metaboled into subservient tendencies, and vice versa; its once subservient tendencies having metaboled into dominant capacities, on the same principle on which the warm summer changes into the cold winter or in which the magnet may change its polarity.

If, for instance, we suspend a bar of iron by one end, letting the other end hang toward the earth, it will become magnetized by the activity in the magnetic field of the earth; it will become positively active at the one end and negatively active at the other end. It will acquire tendencies to point to the North Pole with one end, and to the South Pole with the other end. If we reverse the ends of the bar, suspending it by the other end, we reverse the magnetic activity of its poles; we cause its polar activity to metabole; we cause the North and South Pole-tendencies to change ends. The same change takes place in the revolution of the earth about the sun. It is this change which causes the change of seasons in the yearly cycles, which causes change in spring and neap tides, in trade-winds, in magnetic and electric currents passing through and about the earth, and also the changes which take place in the development of animal and vegetable life during the change of seasons.

The diapheromenal, distributing and penetrating power of solar substance is greatest while and where it interacts with the atmosphere of the earth in greatest quantity and most directly. This interaction changes, by reason of the daily and yearly revolutions of our planet.

The inner causes, active in all these changes, originate in the

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ed, original knowledge of past ages, and they exalted the intellectual peacock over the ideas of SPHAIRA and SPHAIROS.

We will have to return to this sphere-symbol when we attempt to take a comprehensive view of the world-process, and to explain the process by which the planets revolve about the sun and about their own axis; why cell-life grows and divides itself, why there is refraction and polarization of light in nature, etc. We will then see how much more thorough was the knowledge of astronomy in antiquity than in our own day, and how and why this knowledge became the foundation of intellectual, ethical and social development.

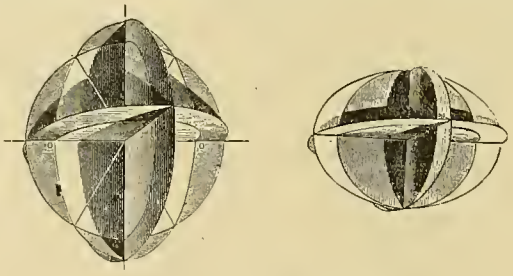
changeful bipolarity and double-activity which characterize the atomic nature of all things—the ferment and digest-centers. The study of digestion in individual cell-life will bring us face to face with the causes of the very changes which take place in a world-wide way, for all activity in nature is controlled by the same principles of procedure.

Metaboling and **enantiodromia** are two words which should be remembered, for what they depict takes place in every act of life, mind and thought. The eye sees and the ear hears, only because of the bipolarity of substance, of which each is made, and because of the change taking place within the character-germs of each by interaction with environment.

This change is always a metaboling; and the interaction is always a result of counter-movement in character-centers—of **enantiodromia**; it is this not only in physical workings of life and death, but also in mental activity. All weighing of opinions regarding right and wrong is a metaboling procedure, and all reasoning from cause to consequence is a matter of following up character-changes—of **enantiodromia.**

Seeing, hearing, touching, tasting, smelling, are all special metabolings within the various character-centers in the organs of the body, resulting from the interaction of these character-centers with other character-centers coming from the world without.

All sensations are special phases of activity in the world-process; all follow the universal principles; all work in connection with some kind of assimilation and elimination of substance in



ILLUSTRATIONS No. 29, 30.

TWO MODELS USED IN SCHOOLS FOR THE PURPOSE OF EXPLAINING THE PRESUMABLY MONOAXIAL AND BIAXIAL REFRACTION OF LIGHT

These models are here produced only for the purpose of illustrating the fact that the elementary workings of nature produce spherical forms as archetypes, and nothing like the flat aspects which analytic thought is wont to take of nature's work.

The subject of refraction of light we will find important, for as the elementary substance of light moves, so move the elementary powers of life, and so develop life, mind and thought.

character-centers, and hence all may be considered as phases in the digestion-process. Digestion is always an alternating of bipolar procedures, and this alternation in polar activity is properly called metaboling. All sensations are phases in the metaboling procedures of life. In all sensations the procedures of life and of death cross each other in the character-centers of special organs; all sensations arise in modifications of these character-centers, even if these modifications do not seem to actually assimilate and eliminate substance, even if they appear to be only irritations; in all cases do they produce that sway in the counter-activity of character-centers which the ancient Greeks knew as metaboling. Ilustr. 32.

Metaboling is a universal kind of change in the process of life and of death. This process can be comprehended under the one name "fermentation-process" or "world-process," or even "electromagnetic process," if we want to take a more abstract view of it, and give it a less comprehensive designation, as we may do; for, in fact, the universal phaenomena of electricity and magnetism are

ILLUSTRATION No. 31.

THE ORIGINAL AND THE SUPERSTRUCTURAL KNOWING POWER. THE ELEMENTARY CONSCIOUSNESS OF FEELING AND THE SUPERSTRUCTURAL CONSCIOUSNESS OF THOUGHT, BY APHONIC AND PHONETIC LANGUAGE SO FULLY EVOLVED THAT THEY FORM A UNIT IN FREE-AGENCY SELF-CONSCIOUSNESS.

An Etruskan ideogram, which may help to elucidate the subject of the duality of human self-consciousness and perhaps also the unification of the two character-germs (depicted in Illustration No. 8) in the human mind.

Directly this ideogram represents only the solar, old-man genius of Spoken Thought, in connection with the boy genius of Speaking Thought, such as, for instance, would be the connection between the consciousness of feeling and the consciousness of thought, when fully evolved by aphonic, comprehensive languages and phonetic, analytic language; but indirectly it can be understood to also represent the union of purposive, reasonable and penetrative intelligence with reflective and word-vested, superficial ideality. In a more distant way, this ideogram may also comprehend the duality of the wet-cold and hot-dry ferment-germs in the physical and intellectual digestion-process of life, for all these three subjects hang together by the same chain of causes, and all have their natural focus in the unifying crossing-point shown in the bands which encircle the body of the ideogram.

It is the knowledge of the crossing-points which connects and unifies the consciousness of thought with the consciousness of feelings in the fully intellectualized mind, and by this connection and unification it makes the thinking faculties of the mind act in the care of feelings. The Etruskans were among the most thorough thinkers of antiquity.

all evidences of the universal characteristics of dissipation, on the one hand, and collection or solidification on the other hand.

DIFFERENCE BETWEEN DEVELOPMENT AND EVOLUTION

The sibylline school never confused the ideas of development and envelopment with the ideas of evolution and involution; it knew both to refer to cyclic procedures, and to these procedures only; but it distinguished the development and envelopment cycles from the evolution and involution cycles. It knew development and envelopment to move only in counter-procedures on established levels, producing and reproducing the existing ferment-germs, while evolution and involution moved up and down the steps of character-generation, on new and changeful levels. It knew Cosmos as a character-evolver, and as a character-producer and reproducer out of life's offal and in life's offal (**Cosmos nooymenos and Cosmos genetos kai phartos**). Illustrating the old-time idea by a present-day example, we may say that the evolution of a new and improved species of hog, say, the Red Jersey type, which in many ways is superior to the long-nosed type, is a step upward in creation of character, but the reproduction of Jersey hogs, after that, is only a cyclic movement on the same level of development. As with species, in the substance of life, so with stages of development in the substance of death. They all move in steps upward and downward of evolution, and on roundabout levels of development in the one substance, which appears as all kinds of matter in all stages of aggregation and dissipation.

The ups and downs in the changeful stages of sewerage are only movements toward or away from the Way of life, and they are devoid of organic or seed-energy; hence we may consider them as merely undulatory movement on the level of cyclic development, so as to distinguish them from the risings into organic character-height and the recedings into organic seed-energy.

The tendencies and capacities to rise and recede organically, however, are being evolved in the workings of sewerage-substance, and hence evolution begins in it. There are step-procedures in the movements of death, as well as in the movements of life. Death is a thing of degree in the way of development, as well as is life.

Life and death interact, and this interaction makes one subject of both. The distinction between life and death, which we must make, should be one which draws the attention of thought, not only to the outer appearance of matter, but also to the inner character-foci and germs, which bring about the changes in substance and phaenomenal aggregation or dissipation of matter.

Antiquity usually divided the course of development which produced or reproduced ferment-germs into twelve different stages, and it knew seven steps of evolution from the most elementary germs to those of highest organic order. These steps it considered as the work of some creative power, active or passive in all substantial existence, and giving all life such character and form as may be required for its perpetuation or so called fitness of survival, under the changeful interaction and metamorphosis of solar and planetary activity.

To get a clearer idea of the seven steps of evolution and the twelve stages of development in character-germs, see the illustrations of the Chinese Kua and Tchy in the Appendix, also the remarks to the illustrations of cell-life.

ILLUSTRATION No. 32.

THE SCALES OF SELF-CONSCIOUS JUDGMENT—AN EGYPTIAN PICTURE, ILLUSTRATING THE ANCIENT IDEA OF METABOLING.

The design depicts the mental factors which come into play in forming self-conscious judgments of Fact; it is therefore an illustration of the logical procedures, as antiquity understood them and as they actually occur in daily life.

The conception of the design is based on the recognition of the fact that all cosmic activity and especially the procedures of life are a matter of constant adjustment in metaboling balance, swayed by the two counter-active elementary forces, and this balance is effected in character-centers, or rather by character-centers.

Based upon this recognition is the further recognition that the human mind, in forming its judgments, must proceed as does the cosmic, to-order-setting power in the process of nature.

To the left, in the above illustration, appears Osiris, seated upon the throne of judgment. He represents the self-conscious, organizing, to-order-setting power in the fully civilized mind, as it existed actively in the Golden Age—the age of Paradise—before word-vested ideas deluded the judging and reasoning powers of the human mind.

ALL CHANGES IN NATURE ARE A MATTER OF PREDOMINANCE AND SUBSERVIENCE IN COUNTER-ACTIVE FORCES.

Antiquity realized thoroughly that no existing thing in nature can ever be absolutely destroyed, that substantial existence cannot be annihilated, but can only be changed in character and form. Substance, with its elementary characteristics of life and death, it knew to be the one indestructible thing in the process of nature. All evolved character, all developed forms, it knew to be engaged in the one changeful process of counter-proceeding powers of life and forces of death. It knew that these counter-procedures characterized a continuous process, which depended on the activity of

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According to the artist's conception of Fact, Osiris thus existed only in the so-called underworld, that is, in the background of the so-called knowledge of his age. In his hands he holds the insignia of that which is "going and coming," and which needs unification and to-order-setting by the self-conscious mind and the free-agency determining power of man. At the base in the rear of his throne appears the sign: "The necessity of organically unifying the intellectual and social branch-development." Before him stand the letter-of-the-law hellhound and Thoth, the scribe.

The scales of self-consciousness occupy the center of the picture, where all contradictory opinions regarding right and wrong are weighed "after the manner of nature." It is here that the metaboling sway, which sustains the order of life, is determined. Horos and Anubis, the two sons of Osiris, who know the within and the without of the world's to-order-setting powers, attend to this determining business.

The metaboling point is represented by Ptah, who personifies the fully evolved free-agency determining power at a certain stage of bygone evolution in human knowing and doing powers. Above Ptah appears the skeleton of the intellectual ark, the one-time home of the human civilizing power, now only existing as a vestige in the civilizing instinct. In it are still active the monkey of wordy instruction and the social hog, with its insatiable greed for opportunity.

To the right in the picture appears the one-feathered Ma in duplicate, as the mother of single-active thought in the dogmatic, as well as in the empiric way of thinking—in purpose as well as in reflection.

The still living, knowing and doing power of the human mind is represented by the figure which stands between the duplicated Ma.

The above is only a fragment of a larger picture, which I have elsewhere attempted to more fully explain. It is here produced only to illustrate the ancient idea of metaboling, as a factor in the cause of cosmic order, of life, of righteousness in the human mind.

The excess in preponderance or subservience of one-sided, counter-active forces in nature, life, mind and thought converts life into sewerage. Only the balanced sway of elementary counterforces sustains the order of life.

The Herakleiteans, at times, seem to have considered the casting of the die as descriptive or symbolic of metaboling, but this did not well serve the purpose. It did not depict the alternating sway of bipolarity as much as the change from one kind of character into another kind of character, and it depicted this change as if coming to a rest, instead of continuing, by way of either alternation or step-procedure. Besides, the casting of a die implies more accident than necessity, while the metabolings of character-power in nature adhere to necessity, to the one law of eternal change, amid accidental interaction.

The characters in the above picture are so chosen that they represent the factors active in the elementary process of nature, as well as those active in the intellectualized mind and in the civilizing process.

character-germs, and on the metaboling predominance and subservience of the elementary forces active within these germs. It realized that character-determinations controlled all nature's activity and stood connected with all its inner and outer changes; but it also realized that the changeful predominance and subservience in elementary forces were primary promptings to natural causation, and it further realized that adventitious interaction of things was a secondary phase of natural causation.

It knew causation as a metaboling procedure in all three of its strands—its within, its without and its determining middle. It knew that character-determinations in natural causation never produced any changes in the process of nature, save in connection with inner promptings and outer conditions.

It knew that the active character-germ expended one of its characteristic powers in every act, and that this expenditure was compensated for by metaboling—by rendering this particular power subservient to some other power in it—and that this metaboling made the process one of continuous change, of which it could never be said: "It is this" or "it is that," but which could only be depicted by saying: "It does this now" or "it did this then—it came this way, it goes that way, etc." Knowing this, antiquity eliminated the auxiliary verb "to be" from its endeavors to depict the workings of nature. It recognized that the auxiliary verb "to be" belonged only to the profane use of language, and not into that healthful or so-called sacred use of language which serves to depict nature's activity as it is in itself, in its active character of causation.

The study of changeful predominance and subservience in its widest range, from atomic activity in elementary nature to the self-consciousness of intellectual activity, cannot well be made one of words; it can only be made so in some special application, such as the sacred writings made of it. In an all-comprehensive way this study corresponds to that of the Yh-king diagrams.

Connected with the ideas of predominance and subservience stands the important fact that thought cannot determine the right and wrong of any act by words having a fixed meaning. The living self-consciousness has to do this determining. All affirmations and denials with regard to natural causes, all positive and negative judgments regarding Facts have to be modified to suit each act.

Truth lives in the fully evolved but unwritten self-consciousness, and not in fixed definitions of words. All verbal statements must be digested by common sense and re-digested by native rea-

son, to make knowledge of Fact, as it is in itself, the property of the thinking mind. Therefore has the thinking mind discerning powers, that it may supply the shortcomings in verbal statements, and eliminate their extravagances and errors.

Analytic thought and its profane use of language represent the inseparable powers and forces in life and in death as if they were acting independently of each other, when, as a matter of fact, they act only by reason of the changeful predominance and subservience in double-active character-powers.

FERMENTATION IDEAS IN ANTIQUITY — VIEWING THE WORLD-PROCESS AS A FERMENTATION PROCESS

Antiquity, thus viewing the facts of development and evolution, virtually looked upon our solar system as a very varied fermentation-process, varying in phases of procedures in life, as well as in death, according to the activity or passivity of the creative power in substance. When this power was active, substance moved in the way of evolution, establishing character-levels; when passive, it moved in the way of development, on established levels, and sooner or later, away from protoplastic conditions, toward the possible extremes of counter-activity; that is, toward great preponderance of one elementary tendency over the other, such as occurs in solar fire, or in solidity of planetary bodies.

It knew fire to be a product of character-foci, active in the one extreme of elementary procedure, and it knew solidification of earthy substance or crystallization of rocks, to be the product of character-foci in the other extreme of elementary preponderance; and it also distinguished the character-steps from one extreme to the other. It knew dry ferment-foci and wet ferment-foci of various kinds; it knew various kinds of fire or stages of dissipating substance, and various kinds of water and solidification of substance; all depending on character-foci, all undergoing change, by reason of changeful character-foci. It knew that these foci were constantly carried from one extreme to the other, forward and backward, in constant counter-procedures (**enantiodromia**); and it knew also that they changed their character (metaboled) on their way between extremes, that is, evolved all kinds of inanimate character-power, from one extreme to the other, from that which causes solar fire to that which causes planetary solidification.

It knew that the solar fire distributed substance toward the earth and planets, and that this substance changed on its way because of change in character-foci; the fire was hottest near the sun; it cooled into ether or prester, and it assumed a moist character in the atmosphere of the earth, taking part in the formation of clouds, and falling as rain.

Antiquity, (always meaning its step of highest sibylline evolution), did not hold that rain water had come solely from evaporation of water on the earth. It knew the causes, which produced the various kinds of water, too well to entertain any such puerile ideas.

Fermentation, as we know it now in special and fragmentary ways, antiquity did not know so well, but it knew it in a comprehensive, world-wide way. It knew it in counter-procedures of double-active nature; it knew it in its fundamental features and phases.

FEATURES AND PHASES OF CAUSATION COME NEXT TO CROSSING-POINTS IN IMPORTANCE TO KNOWLEDGE OF NATURAL CAUSATION

The elucidation of features and phases of causation must also be deferred until we come to deal with the twelve character-types, active in the mental economy of man and in all determinations of civilized life. It is enough to say here that the three strands or phases in the chain of natural causation act simultaneously in four different procedures; two in the way of evolving and involving organic life and its seed-power; and two in the way of collecting and restoring life's offal; and this not only in the process of nature, but also in all mental and intellectual deliberations, even if these deliberations result in errors of judgment and actions.

The process of thinking and of speaking, with intent to tell the truth about nature's activity, either adjusts itself to cosmic and vital procedures in nature or it deviates from them; in deviating it makes sewerage — intellectual offal — (phtharton) — faulty opinions — theories — hypotheses, etc., etc., which the modern mind would call intellectual rot. There is no other alternative in the nature of things. Mind, thought and language must act either in the way of sustaining the order of life or in the way of making sewerage.

Characterful judgments sustain the order of life; characterless judgments disturb this order and make for sewerage. The two kinds of judgments are easily distinguished in their extremes.

Antiquity has produced formulas for the purpose of distinguishing even the kinds of character in human judgments; the more or less, the higher or lower character in them; and it has also described the changeful effects which various types of judgments, predominating here and there, now and then, in civilization, exert upon the life of nations and on the welfare of individuals. It has depicted these changes usually as ages of individual character or as so-called dynasties, to which modern learning attaches only a historical meaning.

Antiquity recognized the mental process as a phase of the universal fermentation-process; and it considered the ideas of right and wrong as ferment-germs to intellectual activity and civil procedures.

Ideas and opinions act as causes in civilized life; they emanate from the substantial, organic structure of the human body; they have their bearing upon human life and welfare. We must not consider them only as non-substantial things, but when considering natural causation in the entire world-process, we must consider ideas and opinions and, in fact, all intellectual activity of man, just as much as we must consider the invisible microbes which live in the air and spread disease, or the solar combustion or planetary concentration of matter, which restore the order of life. A single faulty idea has often spread great delusions in civilized life, and destroyed one civilization after another. Ideal errors may perpetuate themselves and their evil work through long ages.

Of course ideas and opinions do not properly belong to the fundamental view which we are now taking of the world-process, but it is well to bear in mind, at all times, that ideas and opinions are factors in the eternal chain of natural causation, and that they act, as do all other character-foci or germs, in accordance with the one immutable order of life and of death. When we take a comprehensive view of the world-process, we must eventually include all phases of causation, and we must do it just as the sibylline school has always done it — by depicting character-foci and their career, in living as well as in dead substance.

TO ARRIVE AT A COMPREHENSIVE KNOWLEDGE OF NATURAL CAUSATION, IT IS NECESSARY TO DISTINGUISH FEATURES AND PHASES, AS DID ANTIQUITY.

To make and remember the distinction between features and phases of natural causation is important to knowledge of the world-process, as also to the obtaining of a correct idea of the old-time elucidations of this process. All antiquity made this distinction much in the same way.

The Pyramid is the best of the old-time symbols, designed to illustrate features and phases of causation in an abstract way. The four-sided foundation of the pyramid represents the fourfold principles of cosmic procedures, and the triangular sides the fact that upon these procedures rests the conception of the three strands of natural causation, which the mind naturally takes, by reason of the special faculties of knowing. The horizontal line or base of the triangle stands for the understanding of principles, often called common sense. There are four sides to the activity of common sense. Out of this four-sided understanding are evolved special sense and reasoning faculties. These are represented by the sides of the triangle, and they meet in a point above, to show that special sense and special reasoning powers should meet in the self-conscious determination of the free-agency mind. This meeting, as well as the existence of a fully evolved free-agency mind, is a question which various cults answer in various ways.

Has man ever fully evolved free-agency powers?

Are his special sense and reasoning powers ever evolved to equal extent in any one mind?

Are well balanced sense and reason ever unified in self-conscious determinations?

Are there not shortcomings in the best intellectual development?

The ancient Egyptians apparently believed in the possibility of fully evolving intellectual powers. Their ideograms show that such powers were attributed to many mythical characters.

The ancient Americans, however, seem to have taken a somewhat different view of the subject, not only because they flattened the tops of their pyramids, but because many of their ideograms show doubt in the efficiency of intellectual powers. They seem to have considered it necessary to make a continual and strenuous effort to reach the point of free-agency determination and to hold

to it. So also did the Brahmins. Siva and Vishnu seem to have struggled to reach the intellectual height, and if Vishnu did reach it, he does not seem to have been able to hold to it. Brahma himself, the world's original intellectualizer, seems to have retired early from the civilizing business. All these three so-called divine characters seem to have been strugglers toward ideal possibilities, depicted in the Vedas.

Shintoism does not seem to have taken much note of fundamental principles. It seems to say: Hold your thinking consciousness to the three main faculties of living consciousness, and through them, to the three strands of natural causation. Trust to the leadership of the most highly evolved character in the nation, and thus trusting, do the best you can for your neighbor and the nation, as well as for yourself.

The four features of causation were glyphically represented in Ianus Quadrifrons, in the four-faced Brahma, in Jene, etc., but all these characters were representatives of common-sense powers, which, in the way of intellectual development, seem to have been undone, thus suggesting that the ability of the human mind to look in all four directions of elementary principles is lost in the way of special mental evolution.

The four features of causation may be described as the four following procedures in the **process of nature:**

First, the procedure from individuation into organic development;

Second, that from organic development into seed-energy;

Third, that into concentration of matter—of life's offal.

Fourth, that into dissipation of matter, and into excessively rarefied elementary substance.

In the **process of mind** these four features may be described as:

First, the evolution of analytic knowing powers, by means of naturally evolved analytic language.

Second, the evolution of gisty knowing powers, by virtue of that organic language which deals with character-powers—the **logos.**

Third, the development of general and particular states of ideal consciousness, by means of artificially analytic language.

Fourth, the total dissolution of mental powers, by abuse of the organic character-language.

Corresponding to these four features in the process of mental evolution, the four features in the process of social evolution may be described as follows:

First, the organization of civilization, by making a natural and healthful use of the opportunities in the environment.

Second, the creation of an individual determining power to control and solidify civilization, in accordance with reciprocal principles.

Third, the movement of civilization into the control of Mammon or any other unprincipled means-controller—Sammael, Ahriman, etc.

Fourth, the breaking up of civilizations and the dispersion of nations.

These are the four features, as represented in the Tetramorphs of antiquity, which represent the changefulness in the three phases of the world-process, that of elementary nature, that of intellectuality, and that of civilization—the Tri-unity.

The three phases of causation are:

First, the inner impulse or initiative to action.

Second, the outer adaptation to environment, or referendum to the initiative, and

Third, the determining middle-power.

The three phases are usually depicted by Triads, and they are constantly active in all three processes. They hardly need to be described in detail. They can easily be taken note of in every act of nature and of mind. They are best remembered by the symbol of the Japanese Tai-ko—the three eyeless polliwogs. Illustr. 33.

ILLUSTRATION No. 33.

THE JAPANESE TAI-KO

This symbol is here produced only to impress the importance of the three strands of natural causation on the mind. It is one of the best ideograms which antiquity has produced. It refers to the logic of cause and consequence, and serves to elucidate the reasoning from cause to consequence.

There is a way of thinking, deductively and inductively, which holds to sense and reason, and which leads the mind along the natural lines of cause and consequence —along the chain of natural causation. This way of thinking our logicians have not yet discovered. Plato and Aristotle did not know it; how then could our logicians have come to know it? Kant, the presumably greatest of modern thinkers, did not discover the way of connecting the activity of the senses with that of self-consciousness. The ancient Japanese had discovered it long ages ago.

Antiquity knew that fermentation proceeded by constant checking and releasing of tendencies and capacities, and by simultaneous assimilation and elimination.

We all know that life sustains itself by assimilation and elimination of substance. Life must be nourished. It is nourished, even in its germ-form, in seed and chrysallis, by reason of its atomic bi-polarity and by the invisible electromagnetic (diapheromenal sympheromenal) currents passing through it. But few thinkers, however, know that the procedures of death have a parallel to the nourishing process of life; few have studied the causes why such dead things as rocks change their states of aggregation and crystalline form, and why they decompose; and hence few know that the so-called electromagnetic currents pass at all times through all dead substance, nourishing and sustaining its character, and bringing about changes in it. A piece of amber or radium, radiating electrons, would speedily dissolve itself in air if it did not draw on its environment for nourishment and replace the substance which it radiates. The more we cause it to radiate, by heating, by rubbing or otherwise, the more it draws on the environment to replace its radiating power. Hence, things in death are being nourished as well as things in life.

Antiquity knew all this very well. The Chinese and other ancient races, having known this fact and drawn wrong conclusions from it, acquired the habit of supplying their dead with food at burial.

The knowledge of Fact is a good thing, but its misapplication creates all sorts of superstitious follies. Christian faith is full of similar follies. Its originators knew Fact — they knew the world-process — and some of them, like Clement of Alexandria, intentionally exaggerated cause and consequence, by disseminating extravagant ideas of reward and punishment, of heaven and hell, etc., etc.; and almost always the later exponents of Christian faith, who knew less and less of Fact, followed the early examples of superstitiously misrepresenting cause and consequence.

THE PENETRABILITY OF ALL EXISTING THINGS

All things in life and death are penetrable by what we may call, for the present, electromagnetic currents, and these currents have their origin in certain character-germs of substance, in fact,

in elementary characteristics of substance, and hence we should substitute the idea of diapheromenal sympheromenal for that of electro-magnetic. But not caring to be very precise just now, we will say that the all-penetrating electro-magnetic or magneto-electric currents, as the case may be, having their origin in elementary and universal characteristics of substance, belong to any and all kinds of phaenomenal matter; they can penetrate all existing things. The electromagnetic phaenomena originate as do fire, light, heat, warmth, etc. They manifest themselves here and there; they manifest themselves where the causes which produce them are active; they do not manifest themselves — they are latent — when the causes which produce them are passive; but there they are, anyway, as subservient tendencies to predominant capacities, and being there, they move through everything ,slow or fast; we might say they nourish and sustain everything. Antiquity said so of its Yang Yin and diapheromenon sympheromenon.

The electromagnetic currents move fastest in fire; slowest as magneto-electric currents in solid, so-called non-conducting substances. But move they do, and moving, they nourish. They nourish even fire. Fire assimilates substance; a thing could not burn, if fire could not draw upon its environment for nourishment. Air, water, rocks and the entire earth, all are being constantly penetrated by what might be called electric currents; these currents leave something behind and take something along — something is assimilated and something is eliminated by the things through which these currents pass.

The magnet retains its power only because the magneto-electric currents, which nourish its power, pass through it. The needle points constantly to the North Pole, because its magnetic power is constantly nourished by currents passing through it. The North Pole of the earth emits more or less light, because electric currents pass through the earth from pole to pole. All things on earth can be penetrated by electromagnetic currents; all can change their temperature only because certain currents of warmth, partaking of the nature of electricity, pass through them. All assimilate warmth, all things can eliminate it.

These facts are now too well known to need much elucidation.

But what is not known is that this assimilation and elimi-

nation proceeds constantly in four directions. This is what needs explanation, and this is what antiquity knew. (See various illustrations in the appendix).

THE FOUR PROCEDURES IN THE WORLD-PROCESS ARE COMPOSED OF STRAIGHT-LINE RADIATIONS FROM AND TO ATOMIC CENTERS, AND OF CIRCLING MOVEMENTS ABOUT ATOMIC CENTERS.

The fourfold procedures, which characterize all activity in life or death, in mind or thought, we will have to make thoroughly clear to ourselves some day, if we want to extend our knowledge of the workings of nature and of the causes active in civilized life, in education and legislation, upon which individual and social welfare depend. But this extension of the subject is too long to be thoroughly gone into here. It does not belong to the present elementary view of the subject, which we are taking; it belongs to the higher steps of character-evolution.

The process of assimilation and elimination is a universal process of digestion, both in things alive and dead. In life, the fourfold procedures are easily knowable; in death, not so easily. Only two procedures are patent; the other two are latent, not perceptible by the special organs of the human body. But they occur, and they can be made known, by drawing the attention of thought to them.

Antiquity knew the universal digestion-process as a fermentation process, and it knew fermentation to be a process in which substance proceeded constantly in four different directions, making four different kinds of new things out of any old thing. It knew the way of life to be a double-active procedure, from seed to organism and from organism to seed; and it knew the way of death to be similarly double-active in dealing with life's offal, first decomposing dead bodies and then preparing them for return to the procedures of life—preparing them for re-digestion and re-digesting them. It knew the fire-making and the water-making, the so-called spirit and the body-making procedures as four-fold ferment-procedures. It did not know spirit and body in the abstract, as we know them now; it knew them as they are in themselves; it knew the spirit as the character-germ to some kind of ferment, as the nucleus productive of phaenomena, making for life or death, and it knew the body as the housing or shell which invariably encloses the character-germs in all substance, be that

substance in gaseous, liquid, solid or organic state. It also knew both the character-germ and its housing to be products of fourfold procedures.

It knew fire, water, light or air, animal or human life, mind, and thought, to be products of character-germs, enclosed in various substantial housings. It knew the housings to be products mainly of the circling tendencies and capacities of substance, and it knew the nuclei within housings as products of straight-line, radiating and penetrating tendencies of substance, with circling tendencies alloyed, and by them balanced as life-centers, or unbalanced, as inanimate ferment-centers.

It made the distinction between radiating and circling tendencies in death-going procedures one of predominance and subservience only, and it always noted the changeful predominance and subservience in the compound of straight-line and circular tendencies in both the character within and the form without, and it distinguished two character-forms in life, one equipped with more radiating tendencies than the other, the male and female.

(See the Tai-kih illustration, and the Chinese idea of the origin of life).

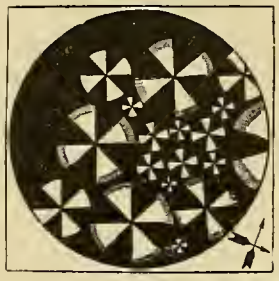
The radiating and the circling double-activity it noted in the undercurrents of mobility and motivity in all of nature's workings, as well as in the outer, phaenomenal, material changes, the changes in aggregations of matter. It knew that radiating and circling movements characterized the activity of aggregated matter, as well as that of elementary substance.

Inasmuch as aggregated matter is always penetrated by rarefied substance, and inasmuch as the procedures of life are always crossed by the procedures of death, antiquity knew four kinds of radiating and circling procedures, and it knew these four procedures to have counter-procedures, there being ups and downs, ins and outs and circling counter-movements to all of nature's changefulness. It knew that a certain combination of radiating and circling procedures causes aggregation of matter, and that another combination of these procedures causes even the greatest aggregations of matter to be reduced into most rarefied states of substance. It knew also that similar combinations of circling and radiating movements take place in the organic development of vegetable and animal life, as well as in the envelopment of organic powers in seed-energy. Knowing this, it knew four kinds of combinations in

circling and radiating procedures, working throughout nature, from the slightest of atomic changes to world-wide movements. It knew radiating and circling changes to characterize the process of universal fermentation or digestion.

These ancient ideas on universal fermentation will aid us in understanding the phaenomenal aspects which modern learning takes of fermentation.

ILLUSTRATION 34.



ILLUSTRATIONS 35-36.

THE VISIBLE AND THE INVISIBLE LIGHT.

The elementary workings of light, which correspond to all other elementary workings of tendencies and capacities in substance, are here shown as seen through the microscope. The cut shows a microscopic view of quinine, or rather conchinine-crystals.

Focalized light and light breaking through crystals are products of the imponderable solar "heat-light"-substance and of ponderable planetary matter. The interaction and counteraction of the imponderable substance with ponderable matter produces the character-centers of the visible light; and the interaction of these character-centers with the character-centers of the special faculties of sense in the animal body produces not only the sensations of light in the eye, but also that of heat or changeful temperature in the body.

Light and heat are inseparably connected in solar substance; the functions of special sense and of analytic thought make them sometimes or often appear as separate things.

The circlings of light become visible when preponderating over the radiations of heat. The radiations of heat are always invisible; the circlings of light, emanating from atomic character-centers, are periodically visible and invisible.

It is always heat, actual or potential heat, or that which makes for heat, which carries the circlings of light away from and about the character-centers in which light is generated and focalized.

It is because the imponderable "heat-light-substance" of solar origin can penetrate all ponderable planetary matter that all material things can change their temperature. The penetrating heat always carries along with it the character of light; if not of actual light, then of potential light. The solar "heat-light-substance" should be conceived as Yang Yin, in order to take in the whole range of fourfold changes which it undergoes by reason of interaction and counteraction with planetary matter.

Biaxiality gives every existing atom four poles, and hence a fourfoldness in activity and passivity—patent and latent tendencies and capacities—a constant changefulness from actuality into potentiality and the reverse.

Light is not always patent, even if its circling activity preponderate over that of radiating heat. The character-centers of the "light-heat-substance" do not always interact with the character-centers in the organs of sight, so as to produce the sensations of light, because the actual and potential axes of the atoms of light alternate in polar activity and passivity, as is more fully explained further on.

Modern learning does not take much notice of dry fermentation, productive of light and heat, or oxidization and dry rot. It concerns itself mainly with wet and vinous fermentation, with the digestion-process and with the biological aspects of this process, and it makes chemical distinctions, of which antiquity knew nothing. It looks at fermentation through the ideas of chemical elements, but it ignores the elements of life and of death, which antiquity knew and considered as the causes of universal fermentation.

Illustration 34 may help to explain the subject.

The digestion-process in animal life, taking place in stomach and lungs, may be considered as a fermentation-process; so also may the processes of combustion, oxidization and even distillation be considered as phases of the fermenting process.

Light, heat, electricity, magnetism, fire and water, and in fact, all existing things, are products or by-products of the universal fermentation-process. Life itself is a product of it; the digestion-process is only a fermentation-process controlled or characterized by various germs — by germs differing from those of elementary cosmic fermentation. The same principles of procedure being alternately active and passive in both the sidereal and the vital process, really make but one process of all nature's activity.

The light-effects are produced by the circulation of alternating light and heat (better sympheromenal diapheromenal) currents. The light is partly visible when the circling currents (sympheromena) predominate; it becomes invisible when the radiations of the diapheromena predominate in the alternating counter-currents.

The circular lines of light are continuously broken by the radiations of heat. The diapheromenal currents pass through the circling (sympheromenal) housings, and thereby produce the sectional effect of black and white fields, or various colors under various conditions.

This breaking of visible and invisible light through crystal may serve to illustrate the elementary activity of imponderable substance. It is this activity which causes many elementary types of life to assume their regular form, in more mechanical than conscious ways.

Crystals form about a double axis, because they are products of imponderable solar substance and of ponderable planetary matter, and because both these things have their own character-centers, which interact and counteract in both circling and radiating procedures. When interaction makes them a unit by assimilation, counteraction again divides them in part by elimination. The alternating assimilation and elimination of solar substance and planetary matter in the same character-center causes a fourfold division in radiating and circling procedures, which are only partly visible to the special organs of sight.——————The radiations of heat-substance give them straight-line forms; the circling of light-substance sets limits to the forms; it checks the diapheromenal energy in atomic activity. As crystals form, so do they break light, as seen under polarization. Looking in the direction of the axis, they do not seem to break the light, but looking under an angle of, say forty-five degrees, they show the circling movement, as seen in Fig. 35. The alternations in the light-heat currents are shown as straight-line breaks in the circles. The cross has nothing to do with the breaking of the light in the crystal; it is caused by the action of the lens. When turning the lens the circles remain, but the cross is changed, as in Figure 36.

The universal fermentation-process divides itself into four procedures, and these procedures produce very different effects and seem to be different processes, yet in fact the same creative and productive principles are active in them all. They all have certain fundamental characteristics in common; all assimilate and eliminate substance in two different ways. The process of dry fermentation, which produces oxidization and fire, is quite similar to the process of wet fermentation, which changes the aggregation of substance, producing such phaenomena as water from mountain-springs or rain; and these dry and wet phases of the fermenting process are quite similar to the vinous fermentation, as well as to the digestion-process. If we understand the workings of any one of the four fundamental procedures of the universal fermenting process, we can understand them all.

If we closely observe the phaenomenal changes which take place in vinous fermentation, we will find that heat is generated from certain centers which are surrounded by circular movements; that certain gases are being eliminated from the fermenting mass over its surface, and that certain dregs are being deposited at the bottom, thus making a twofold elimination. We might also find that a certain new substance is being formed between the heat-centers and the circles which enclose them, and that the heat-centers burn out as the new substance forms, and that hence the mass cools off. What has actually taken place is that the heat-centers have exhausted their digest-powers, and having exhausted them, they become inactive for a time, undergo a metamorphosis, or die. During their activity, they have converted the surrounding matter within their reach into some other kind of matter, and this new matter has new character-centers, which, for certain reasons, can take hold of it and cause another form of digestion. Now this certain reason, in all cases, is founded in the diapheromenal sympheromenal undercurrents which penetrate all matter. No fermentation of any kind could take place if the character-centers did not take hold of these undercurrents. There could be no ignition of character-centers; there could be no conversion of one kind of matter into another kind of matter, if the undercurrents did not pass through the poles of the character or ferment-centers.

The world-process is one of interaction and counteraction between material things and substantial undercurrents.

We must look upon the rarefied, imperceptible substance as the very opposite to perceptible aggregation of matter. Hereafter, in these pages, the words **substance** and **matter** will be used as having an opposite meaning. (1)

The penetration of matter by substantial undercurrents affects the workings of all character, ferment, or digest-centers; it causes

(1) The difference between imperceptible substance and perceptible matter needs some further explanation.

Scientific thinkers in recent times have made the distinction between substantial undercurrents and aggregations of matter by the use of the words ponderable and imponderable matter; they have substituted the words imponderable matter for the old-time idea of ether, and they have attempted to discover the physical nature of ether in the ways of chemistry, by experimenting with material things. They have spoken of new gases, of etherion, or of pure hydrogen, as being possibly the kind of matter which fills the planetary space. All such investigations and experiments must ever prove futile. The distinction between ponderable and imponderable matter can serve no purpose; the test of weight cannot be applied to distinguish the matter of planetary origin from the substance of solar origin. The difference which exists between these two things is a difference in activity of character-centers.

If planetary matter is rarefied by the utmost extreme of heat available in the regions of planets, it still remains matter, and it solidifies itself or can be solidified.

Quite different is the case with solar substance, which is rarefied to a far greater extent, and in consequence assumes a far greater activity and cannot be solidified by any mechanical means.

The substance of light, heat and electricity retains its own character, although it causes all sorts of phaenomenal changes. It produces all sorts of changes in material character-centers, by passing through them, but in passing through it comes out much as it went in, an active power, changing mainly in diapheromenal and sympheromenal preponderance and subservience.

The only way in which solar substance can again be solidified and made to assume a material or ponderable character seems to be that of vital, organic digestion. Sewerage-fermentation does not seem to do it; it seems to act only as a disinfectant, making for either dissipation or solidification of matter. Even in passing through the body of the earth, the rarefied solar substance does not seem to undergo great changes; it does not seem to add materially to the growth of the earth's body. It seems to undergo only those changes which cause the rising and lowering of temperature, and expansion or contraction, as the case may be.

As a matter of fact, however, the solar substance is, in part, being condensed, and reduced to material conditions in some way by the process of life or otherwise, in or about the planets and on the outskirts of the solar system; and in part it passes on beyond this system to meet material reduction in the distant heavens. That part of solar substance which passes on through the universe makes distant stars visible. We see distant stars only because part of the substance distributed by them penetrates our planetary system and interacts with our organs of sight. Each fixed star is a sun, which contributes its mite to other planetary life than its own. This fact was well known to antiquity, and resulted in many more or less absurd speculations on part of visionary idealists and speculative astrologers.

The words substance and matter, while more suitable than the contradictory adjectives ponderable and imponderable, are yet not altogether satisfactory to describe the difference between solar and planetary activity. They are statical terms, and as such, they cannot properly depict activity. Therefore have the Herakleiteans chosen the word PHEROMENA to indicate activity, meaning the activity of the imperceptible undercurrents which penetrate all material and perceptible existence.

them to ignite and to metamorphose, if not also to be extinguished, and it carries their metamorphosis along through distance, thereby furnishing the inner initiative to all material changefulness and to the eventual conversion of all kinds of matter into all other kinds of matter. This ignition, metamorphosis and extinction of material character-centers by substantial undercurrents is one of the universal characteristics of the world-process; it takes place in all changes of aggregations of matter; it goes on in the change from gaseous to liquid or solid aggregation, and it goes on in the change from solid to liquid and gaseous aggregation. The heating tendency or capacity is always present in material character-centers; it is always being stirred by penetration of the undercurrents, even if no perceptible change takes place in the form of the penetrated matter. For instance, the undercurrents pass through the magnetic needle; they cause it to point to the North and South Poles of the earth without producing any material changes in it, excepting perhaps those of varying temperature.

All character-centers in matter are heat-centers. Every atom is an enclosed heat-center. The ignition and extinction of these heat-centers produce all the phaenomenal changes which characterize life or death. As the old heat-center burns out, its enclosing matter becomes subject to newly forming heat-centers, by reason of the penetrating undercurrents which continue the work of universal fermentation, thus producing the endless changes in nature's activity.

Every kind of character-center has some kind of combination of diapheromenal sympheromenal tendencies and capacities, the one making for dissipation, the other for concentration of matter, and every character-center also has its own kind of enclosure. This enclosure also has its sympheromenal diapheromenal tendencies and capacities. The character-centers in all material things are in constant touch with the diapheromenal sympheromenal field, for they are being penetrated in a slight or great degree by the counter-tendencies and capacities in this field. The enclosures of character-centers control the degree of penetration.

If we strike a match it ignites. The tendency to ignition has been in the match before we struck it, but it has been held in check by its own enclosure. The breaking of the enclosure has set free the heating tendencies and has caused the ignition, by bringing the inner, material character-centers in touch with

those of the environing, substantial field. The match could not have been ignited if its own character-center had not come in touch with the character-centers in the substantial undercurrents. by the breaking of the enclosure.

In the burning out of the match, gases and ashes result as waste; and something besides, which was in the substance of the match, is converted into heat, which enters the atmosphere, producing in it changes of character and form, noticeable mainly as changes of temperature and atmospheric activity. This new substance has new heat-centers, even if they be imperceptible and latent; if we should apply intenser heat to it, it would again burn and undergo further changes.

THE OLD-TIME IDEAS OF UNIFORMITY IN ATOMIC ACTIVITY. THE SAME MOBILITY AND MOTIVITY CHARACTERIZE PHYSICAL LIGHT AND HEAT WHICH CHARACTERIZE SPECIAL CONSCIOUSNESS AND SELF-CONSCIOUSNESS.

In the old-time educational dialogues, the subject of interaction between solar substance and earthy matter is introduced as follows: The Genius of creation asks the sensible thinker on his left, "What does the process of life consist of?". The sensible thinker answers, "Eating and drinking," meaning physical digestion. "You do not yet understand the creative principles," says the Genius, and then turning to the right, and addressing the reasonable thinker, he repeats his question. Answer, "Breath," meaning the part which the imperceptible undercurrents play in the digestion-process.

"Better, but not perfect," says the Genius; and so on; the argument being that before there can be any vital digestion of either solar substance or earthy matter, there must first be a character or digest-center.

The digest-center is created by the tendencies of excessively rarefied solar substance to re-concentrate life's energies, which were formerly active within it,—the so-called "old-man tendencies." These tendencies are converted into actual capacities of re-concentration at a certain stage of development in the interaction of solar substance with planetary matter, namely, the balanced or protoplastic stage, in which the elementary counterforces of nature can establish an equilibrium in a joint character-center. The ferment-center of solar substance meets the ferment-center of earthy matter, and the two, finding unification, produce the one individual character or digest-center of life.

To follow this subject further, we need the Chinese idea of **Yang Yin**, or the Greek idea of **diapheromenon sympheromenon** The use of such outlandish words as Yang Yin may require some apology, which I will attempt to give in the subjoined footnote.*

The more closely we look into atomic activity, the more evident becomes the necessity of adopting some double-active idea and some word to express this idea. Nature is double-active in a twofold or rather in a fourfold way; she is double-active in both her inner and outer activity, by reason of alternating bipolarity in atomic character, ferment or digest-centers. The changefulness in these ways cannot be explained, save by some word, the meaning of which can be similarly changed, as can the Chinese words **Yang Yin** or **Yin Yang.** We must work up gradually toward a full definition of these words. More suitable words no language seems ever to have produced, at least, none are known to me; and none appear so thoroughly represented by aphonic signs. The Greek words **diapheromenon sympheromenon**, while well chosen to represent the double activity of nature and the **Yang Yin** ideas, are not so well sustained by the records of comprehensive and world-wide knowledge of Fact.

*If the Chinese words "Yang" and "Yin" have an objectionable sound to the Caucasian ear, let some modern scholar invent two words equally comprehensive, to represent the universal counter-tendencies and capacities of all of nature's mobility and motivity, from the sidereal process to the intellectualizing and civilizing process; and if he can find or invent suitable words, let him try to explain the workings of the counter-tending forces in their connection with character-changes as thoroughly as did the Fu-hsi school, in the Yh-king diagrams and in the elucidation of these diagrams.

Even K'ung'fu-tse (Confucius), the greatest thinker of historic China, if he was really a historic character, seems to have been unable to thoroughly understand these old-time diagrams, much less to improve them.

The sibylline school never could hold its own anywhere in the world, because it did not lay an everlasting foundation for the interpretation of its character-stories. Its stories conformed to the facts, but the facts were not technically represented, and therefore the character-stories became unintelligible. No one knows what the Zend-Avesta, the Vedas, the Old Testament, the Egyptian myths, etc., etc., were intended to elucidate. No one within historic ages seems to have known it very well, because the technical foundation was lacking.

The prosopopeia-system of rhetoric, upon the virtues of which the sibylline school relied, failed as completely in making intellectual development keep pace with the changeful requirements in social evolution as did the grammatical learning of Babylon, of Assyria, of the school of Confucius in China, of Alexandria, etc., and as will fail our own present system of education. Something more effective than words and pictures is required to keep thought in touch with the changefulness in living consciousness, and to give it that power which is needed to make intellectuality more than a partial development of man's original knowing power. The half-baked intellects ruin civilization. The Yh-king diagrams seem to be the only thing the world has ever produced to so connect the thinking consciousness with the living consciousness as to make possible the full development of actual knowledge out of the living, potential knowing powers.

The double-active counter-tendencies of both solar substance and earthy matter are the Yang Yin; the Yang part makes for radiation and penetration, by what, for the present, we may call the straight-line movement; and the Yin part for enclosing centers of radiation and for solidification by circling movements.

We are confronted by the fact that it is necessary to understand the mobility and motivity of atomic character-power, in order to understand the workings of the links in the chain of natural causation, to which we owe our existence, and in order to acquire the ability of reasoning from cause to consequence. Until modern learning finds words to take the place of Yang Yin, and until it devises a technical system, superior to that of the Yh-king diagrams, the diagrams in the book of changefulness in active character-power, we had better struggle with the old-time ideas, even if it be laborious and opposed to modern literary taste. "Get there" we must; if the old-time, abandoned way is not easily traveled, let us put up with the hardships, and if possible make it passable, for it leads where no other road can take us, that is, to a thorough knowledge of the world-process, and it will give us the needed technical foundation to perpetuate our knowledge.

The Yh-king diagrams are not so interesting as the ideograms and character-stories of the sibylline school, but the former have a better hold on the active "point" which it is necessary to make, and of which the sibylline school says that it cannot be brought within the boundaries of verbal definitions. It certainly cannot be reached by mathematical study. The integral and differential calculus cannot cope with nature's changefulness, although the mathematical work should be the same in principle as the Kua diagrams, but it is not; it cannot take the changefulness of character-powers into consideration, which the Yh-king diagrams make the foundation of all changefulness.

The mechanical aspects of nature's work are a different thing from the vital aspects of it. Mechanical reasoning is not vital reasoning.

The Chinese hold to their old-time Yang Yin ideas, and they apply them in an indirect way to their medical school. The Chinese nation is physically in good condition. Its medical men are ignorant of the outer causes of diseases and almost ignorant of palliative means of cure, but they are past grand masters in regulating the digestion-process. The Chinese medical science is dogmatic; it is the antipode of our own empirical school of medicine; it has virtues which our school has not, and we will lose no ground by looking into its merits. We need not believe in snake-medicines nor in medical preparations of tigers' hearts. There are quacks in China, as there are also among us. The Yang Yin knowledge has merits, and these we need to know and not the faulty deductions drawn from them.

Therefore, back to the words "Yang Yin"! The Greek words DIAPHEROMENON SYMPHEROMENON will do later. Such words as electric and magnetic or heat and light will never do; they refer only to some dominant capacities and never to the underlying tendencies, nor to the changefulness between tendencies and capacities.

If in these pages we substitute the words light and heat for the Yang Yin ideas, we must remember that we represent the elementary dual forces in nature only in an abstract way. Light and heat represent two certain phaenomena, while Yang Yin represents the four counter-procedures productive of all phaenomena, physical, vital and mental, not only the causes of physical light and heat, but also those of living warmth, heat of passion, light of consciousness, etc.

Yang Yin is known to have a certain character-power, while light and heat are not known to have such power. The character-power of the Yang Yin is due to the crossing of biaxiality in all atoms, and biaxiality gives every atom four poles of activity and passivity. All this we must bear in mind, for it characterizes every act of nature, mind and thought.

It is difficult to find words to hold the mind to these universal characteristics of nature's activity, and the so holding the mind is a necessity to the holding of thought to Fact and the keeping it from going off at a tangent into abstract ideality and self-sufficiency.

The character-center of the Yang Yin idea is an active, conscious and even self-conscious digestion-center, and it is this digestion-center which makes it possible to assimilate the truth in world-vested ideas, and to eliminate the errors. Therefore the Yang Yin lays the foundation to a living criterion of certitude in the intellectual workings of the mind, and this the words light and heat, or any other words known to our language, could not do. We cannot do better than study the meaning of the words Yang Yin, but we can do worse.

By reason of the penetration of earthy matter by solar substance, the tendencies to life and consciousness, which are dormant in each, become active capacities under favorable (protoplastic) conditions. The solar substance with its Yang Yin tendencies, when reaching and penetrating the earthy atmosphere, meets the exhalations of the earth, with their Yin Yang tendencies, and the

All the mathematical studies and endeavors have failed to furnish the necessary foundation for intellectual development. Mathematics are too far removed from the life and death-going procedures of nature to fully and fairly represent them. The changefulness of the factors in consciousness must be technically worked out, in order to enable the advancing mind to hold to its elementary knowing powers and to principles of life and of death, as it acquires a diversified and detailed knowledge of phaenomena and of apparent changefulness in nature. The world-process is or should be made a scientific study, as well as electricity, magnetism, medicine, etc., and it should be given a technical foundation; but neither mathematics nor chemistry can give it this foundation. Nature is a thing of changeful life and death, and the technical foundation, which is needed to represent it, must represent this changefulness in some way, as did the Yh-king diagrams. This changefulness of character-powers in the process of nature cannot be represented by statical ideas, nor by word-vested pictures of thought, and certainly not by any differential ratio.

To trust to impressions which sacred character-stories can make is insufficient to obtain or retain the needed knowledge of fundamental principles, active in the world-process; and it has so proven itself. The evangelic, as well as the apostolic branches of the sibylline school, have failed to keep errors of thought from doing their ruinous work in civilization. Evangelic is the consciousness which emanates from a living self-conscious character-center, and which goes out into the world. Apostolic is that consciousness which is acquired by outer faculties of mind, and which connects the outwardness of things with the active character within them.

All the older branches of the sibylline school, the one, two, or eight-God systems, were evangelic; the twelve-God systems, such as the Greek and Roman, were apostolic. The former rested on the belief that the inner character of creative power can be thoroughly known; the latter assumed that this inwardness never can be fully known. This difference in belief and assumptions underlies the difference between the old gnosticism (or modern metagnosticism) and agnosticism.

The greater old-time thinkers, who were far more thorough fact-knowers than modern thinkers, have struggled in vain to elucidate the elements of nature's activity, and to give their ethical systems a permanent footing in fact. If these great minds failed, what can our present thinkers hope to accomplish, to equal the Yang Yin ideas and the Yh-king diagrams?

No matter what our objections may be to going back beyond all reckoning of time to the Fu-hsi school, we had better lay them aside, and struggle back to that past height of intellectuality in those distant ages when mankind knew what it was talking about, although, according to modern evolutionists, it is said that it had just emerged from the monkey species.

The modern mind has just learned the name of evolution, and it imagines that it knows all about it, and far more than the world ever knew. It has not yet learned that there is a retrogressive counter-procedure to that of evolution; that the mind does not always gain knowing powers, but that it also loses them; that the gain in polymathic knowledge entails the loss of natural knowledge, and that the human mind, long before the fall of the early Babylon, had been constantly losing its original knowing powers, its common sense, its native reason and free-agency determining power, as it had become rich in opinions, theories, 'isms and other phases of analytic word-knowledge. But yet the modern mind imagines it knows more than the human mind ever did. The "Boy-genius of Speaking Thought" always imagines that it knows more than the "Old-man-genius of Spoken Thought," but it has never proved it.

meeting, interacting and counteracting of these tendencies converts the more or less one-sided and unconscious fermentation-process, taking place in each, into the double-active, consciously balanced digestion-process of life.

It seems to me that some of the Fathers of the Christian Church understood the world-process well enough to have given it a much better technical foundation than is the Apocalypse—the lifting of the (verbal) veil. They relied upon symbols to make the work of thought and phonetic language digestible in self-consciousness. Symbols are factors in the aphonic sign-language; they appeal to the mind through the eye, and the eye is an organ better fitted to prepare evidences of Fact for mental and self-conscious digestion than is the ear. Symbols can serve to go beyond the meaning of dictionary definitions into the workings of living consciousness, but they can do this only if the technique of the symbol-language is understood. Words in sentences could convey no meaning if the rules of grammar, syntax, definitions, etc., were not understood, and these rules are the technique of phonetic language. The Apocalypse does not explain the technique of symbol-language; the Yh-king diagrams do.

The symbols are ostensibly an improvement on the Yh-king diagrams, or at least a practical application of them. Like the Yh-king diagrams, they are intended to hold the workings of diversified thought to living consciousness and self-consciousness, and through those to the gist in natural causation.

If the technique of symbols were understood, they might serve to connect the diversified, analytic, detailed work of thought and the multitudinous ideas emanating from sense-knowledge with self-consciousness. If this connection is not established, then self-consciousness does not properly enter into mental deliberation, and reasoning from cause to consequence becomes impossible. Ideas which do not find their true connection with natural causation cause the so-called confusion of tongues, the war of words for opinions' sake, and the consequent ruin of civilization.

The sounds of words in phonetic language are only one degree above the tickings of a telegraph apparatus in preparedness for mental digestion. To make them intelligible, to find their value, even in word-consciousness, requires a knowledge of the system, in accordance with which they are employed. To find the value in consciousness of words and sentences referring to something beyond the reach of dictionary definitions, of words which refer to nature's inner activity, to causes of life, etc., their meaning must be sensibly digested and reasonably re-digested, if they are expressive of reasonable ideas. To know the alphabets or the dictionary meanings of words, or even the whole of great works by heart, does not necessarily amount to knowing the fullness of their meanings—their true equivalents in consciousness. Many people have memorized the whole of the Bible and yet have never known the full meaning of a line of it. That use which sacred writings makes of words hints at the conscious causes of nature's activity. These causes have their equivalent in human consciousness, but they have no equivalent in dictionary definitions, hence they cannot be digested in accordance with these definitions; they must be digested in the natural way of consciousness and self-consciousness. To so digest them, the mental digestion-process must be understood in its working principles.

The symbol-language, like the verbal language used in so-called sacred writ, refers to something beyond the reach of dictionary words. It refers to living consciousness directly, and hence calls for mental digestion by the self-conscious powers of life. No one at this day knows what part the Apocalypse plays in the New Testament work, or what it meant to say.

It also seems to me that the New Testament writers entertained the idea, shared by most men who can think, viz.: What is the use of trying to explain all these matters to the public? It will not go to the trouble of studying them and it has not sense enough to comprehend them, anyway. This sort of argument is to be condemned; it does not develop the knowing powers of those minds which are searching earnestly after truth, and it eventually puts the public mind in a state where no one knows the very facts which must be known to make civilization a success. Word-working sophistry can never do it. The public mind must be given a chance to lift the verbal veil and study the very causes which make civilization a success or a failure.

While our language lacks comprehensive words, which can connect thought with the causes of atomic activity in nature, we cannot make the world-process thoroughly clear to ourselves, unless we do make clear to ourselves the meaning of words which once served humanity to make the world-process known.

ALL IMPONDERABLE SUBSTANCE, AS WELL AS ALL PONDERABLE MATTER, IS CHARACTERIZED BY ATOMIC ACTIVITY.

All atoms are more or less active ferment-centers in circular form; all interact with their environment; all assimilate something from their environment and all eliminate something into it. All material atoms can be penetrated by rarefied solar substance, such as heat, electricity, magnetism, etc., in fact, by the solar Yang Yin; all have an axis of revolution due to the circling Yin tendencies within them; and all have also an axis of penetration, due to the solar Yang tendencies, acting upon these from without. All atoms are biaxial; they have an axis of actual revolution and one of potential revolution; being biaxial, they have also two equators, as shown in the globe of the chthonic Helios. Each axis has two poles, and each pole is in part active and in part passive. All polar activity has a passive counterpart or "double," as the ancient Egyptians put it; it has a twofold character, composed of counterforces, and there is an alternating of activity and passivity between these counterforces and their double in the universal fermentation or digestion-process.

All atoms, by reason of inner radiating and circling activity, tend to assume a spherical shape. That which appears as bipolar to a surface view is really biaxial in the spherical atom, because the poles, visible on the flat surface, extend themselves as axes through the sphere, and if this should be turned over, there would be two more poles visible on the other side. The poles have their counter-poles at the other end of the axes. The subject of elementary spheres in wave-motion has been worked into a theory by Huyghens.

The two axes always cross each other in the center of the atom, under angles of changeful degree.

The crossing-point is the nexus, in which the axes never cease to interact and counteract. (See illustr. No. 37.)

All this applies to the origin of light, heat, electricity, magnetism, life, etc., and really to all the atomic causes of nature's activity.

If we apply this Chinese idea to cell-life, as now known, we must assume that the axis of the nucleolus always crosses the axis of the centrosome.

The atomic biaxiality is due to the interaction of solar sub-

stance and earthy matter. If there were solar substance apart from interaction of earthy matter, there would be no biaxiality in its atoms, nor would there be biaxiality in the atoms of matter if the solar substance did not penetrate it.

Atoms in rarefied solar substance move by force of radiation from the solar centers, rolling along approximately straight lines (really curves) into expanding space; to fill the expanding space

ILLUSTRATION NO. 37

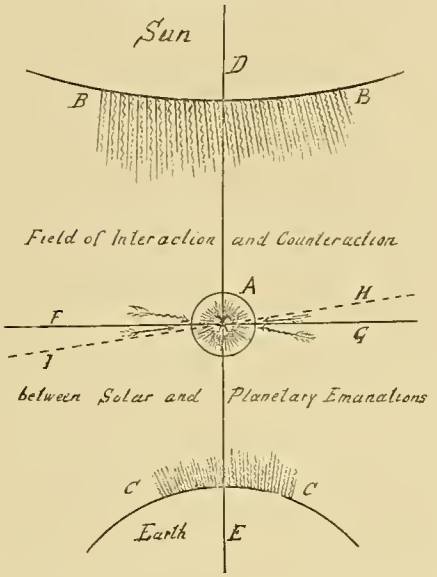


DIAGRAM TO EXPLAIN THE ATOMIC ACTIVITY OF LIGHT AND HEAT-CENTERS, PARTICULARLY IN PLANETARY SPACE.

A—The approximately spherical, plastic form of the atom, composed of the substance of light and heat, coming from the sun, and the atmospheric light and heat substance, exhaled by the earth, the words light and heat here being used to take the place of the Chinese Yang Yin. This substitution, of course, is irregular, for these words are by no means synonyms. The Yin Yang ideas are not anything like our ideas of light and heat, for the Chinese attribute to them vital and mental tendencies and capacities.

B—The segment of solar activity.

C—The segment of earthy activity.

D-E—An imaginary line, representing the axis of solar and planetary interaction and counteraction.

F-G—The axis of actual revolution of the atom, mainly due to its inner activity.

H-I—The axis of potential activity, in which the outer influence of solar-planetary substance (PERIPHORA) is summed up or may be collectively considered.

X—The nexus, the character or digest-center in the atom.

The straight or approximately straight lines represent the Yang or heat-power, and the wave-lines represent the Yin, or light-power, or rather the changeful tendencies and capacities of the Yang Yin—what we might for short call the substance of light and heat. The space between sun and earth, surrounding the atom, must be con-

they divide themselves in a way not unlike that of self-division in elementary cell-life.

The causes of atomic self-division in the substance of solar light in distant space, and those of self-division of elementary cell-life on this planet differ only by reason of different combinations in the substantial, solar Yang Yin and the material, earthy Yin Yang. There are four cardinal combinations of Yang Yin, which produce self-division in all cases, and there are four counterparts to those cardinal combinations, making eight combinations in all, viz., the eight combinations of the Pa-kua trigrams.

The four cardinal combinations are the solar Yang Yin and the earthy Yin Yang, and the solar Yin Yang and the earthy Yang Yin. These four combinations of Yang Yin have four different unifying, individual character, ferment or digest-centers. The counterparts to these cardinal combinations have also their character-centers in all cases but one, in which the character-center is practically nil or dead, inactive, excessively subservient to the influences of either the one or the other of the elementary counter-forces in the environment, as is the case, for instance, in the substance of heat near the sun, or in the very solid aggregations of earthy matter, and also in some extreme cases of intellectual activity, when analytic thought runs riot—goes into extremes.

The Kua diagrams are formulas in which the physical and mental activity are united, in accordance with the all-controlling, universal principles of life and death. These formulas apply to

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sidered as filled with solar-planetary substance and matter, carried about in a circling movement, which the Greeks called PERIPHORA, and entering both poles of the atom with unequal force, there being an upper and lower side to the solar as well as to the planetary influence in the PERIPHORA.

The substance of the PERIPHORA enters the potential axis of the atom mainly at its poles, and not at its equator. The assimilating and eliminating of the substance of the PERIPHORA within the atom is done in the nexus, or point of intersection of the actual and potential axes.

The atom has twofold powers of digestion, one drawing benefit mainly from earthy substance, the other mainly from solar substance, and these powers change their dominant avtivity; now they absorb more Yang than Yin, now more Yin than Yang; now the actual axis does the work, as the character of the atom determines; now the potential axis does the work, under the predominatng influence of the environment. The atom grows, as does cell-life, to fit itself into expanding space, in its movement from sun to planet; it grows by assimilating earthy Yin Yang substance, but in the alternating of its axial activity and the consequent changes in assimilation and elimination it also draws on solar Yang Yin, and it is this drawing which causes the change of angle between actual and potential axes, and the eventual self-division into two new atoms.

solar and planetary activity, as well as to that of life and mind. They illustrate the universal principles in all of nature's motivity and mobility.

In the case of solar substance, light, heat (or solar Yang Yin), the atoms have a very different mobility and motivity from the atoms of light within the boundaries of the earthy atmosphere. The force of solar radiation is excessively great in the neighborhood of the sun; it is a minimum in the neighborhood of the earth, as far as we are concerned. The atoms near the sun are therefore subjected to excessive outer influence, while the atoms near the earth are subjected only to a minimum of this influence. The mobility of the former is determined by their environment, and that of the latter by their enclosed character-centers. There is much straight-line radiation active in the former case and very little in the latter case, in which the circling, concentrating tendency predominates. It is only in the latter case that light becomes visible. While the solar fire itself is visible, being the burning of solar matter (solar Yin Yang), the solar substance (Yang Yin) surrounding the solar fire produces no light visible to the naked eye. The straight-line radiations of light are too swift for the character-centers of the eye, and therefore never visible. The circling movements of light alone are visible, only within certain limits, the power of the character-centers in the eye being limited.

And again: Only one half of the circling movements of light are visible, for the polarity of the atomic light-center responds only half the time to the polarity of the character-center in the eye. Therefore, taking a phaenomenal view of light, we may speak of light-waves, but as a matter of fact, the light-waves are all circles, alloyed with straight-line movements, and this fact we must bear in mind when we attempt to draw deductions from the phaenomena of light, and especially when we consider the relationship of physical life to consciousness, or its influence upon the fermentation or digestion-process. All these subjects antiquity has worked out to a nicety, in its ideas regarding the universal fermentation-process—the world-process.

There is invisible light, other than that which modern science knows. Solar light and heat, electric and magnetic tendencies, the Yang Yin powers, all interact and counteract constantly with the powers inherent in earthy matter. The multitudinous phases of interaction and counteraction may be a tedious study, but impossible or fruitless they are not; in fact, they are fruitful studies of

the greatest importance. Without entering into these studies, we can never know the causes of planetary rotation or revolution about the sun, or of tides or of trade winds, of climatic changes, of earthquakes, etc., etc.

Atomic activity is at the bottom of all phaenomenal changes in the world, and atomic activity must be studied in its own true inwardness, before the outer changes of things—the phaenomenal changes—can be explained in their connection with natural causes. To follow atomic mobility and motivity much further into details would not be interesting to many American readers, hence I will not pursue the subject very much further. I will only take note of the principal points which will enable the minds, so inclined, to take hold of it. (See note at bottom of page, also Drescher's diagrams of atomic energy, in appendix.)

To further study the subject of universal fermentation and of vital digestion, the origin of life and of seed-energy, etc., we now need the old Greek idea of the **periechon.**

Let us draw an imaginary line from sun to earth, and call the collective influence of solar activity, on the one side, the solar pole; and that of earthy activity, on the other side, the planetary pole. Let us imagine that an atom of light is moving in the direction of this line, by force of solar repulsion toward the earth. To describe the character of this atom let us look at the illustration of the Tai-kih, No. 9. This Tai-kih is a little sphere, composed of two polliwogs. In the one polliwog, the solar Yang Yin tendencies predominate; in the other, the earthy Yin Yang tendencies, the atom thus being a mixture of solar substance and earthy matter. It has two axes, an axis of actual revolution and one of potential revolution. These two axes stand crosswise the imaginary line between sun and earth, as the atom rolls on its equator. The atom has originated by self-division from another atom. At the moment of its origin, its actual and potential axes merged into one, passing through each other, forming a slight but increasing angle. The one axis does the assimilating, the other the eliminating on one end; and vice versa on the other end. As the young atom rolls into expanding space its body grows in mass, and the axes extend themselves in the line of least resistance from environment. Their angle of intersection widens about the nexus or crossing-point—the ferment or digest-center—until they stand at right angles to each other. At that moment, self-division is half completed. The assimilating and eliminating activity of the axes begins to reverse itself, under the changed influence of the solar and earthy poles, from which the nourishment of the growing atom has been drawn. The actual axis of revolution is being torn in two, giving way to two new axes of revolution, forming themselves out of the potential axis. With this tearing of axes, two new atoms form, to continue the propagation of atoms and the filling of expanding space, as they travel from sun to earth. During this travel, the character of the atom changes constantly, and this change is what the Greeks called ENANTIODROMIA; and the feeding of the atom through its poles, by solar substance moving earthward toward condensation and by earthy, rarefying matter moving sunward, they depicted by their idea of PERIPHORA. These two features in the universal fermentation-process, the ENANTIODROMIA and the PERIPHORA, belong, not only to the sidereal process, but also to the process of digestion, life and mind-making.

The solar Yang Yin tendencies penetrate the body of the earth, as they do its atmosphere; in this penetration the Yang Yin tendencies metabole; that is, they reverse the predominance and subservience of their counter-activity, and they emerge from the body of the earth as Yin Yang capacities, taking part in forming what the Greeks called the **periechon** in the atmosphere—the bioplastic character of the atmosphere—its life-building power. This **periechon** also plays its part in the digestion-process. It does half the work in building up character or digest-centers. It puts a North Pole to a South Pole in the digestion-focus or axis; it gives the biaxial germs of life a different bipolar character; it produces some alternating changes in the digestion-process, which build up and sustain both the mental and physical powers of life.

Thus we have not only a direct solar influence in the atmosphere of the earth, but also an indirect; the direct influence is Yang Yin, the indirect Yin Yang.

To these two kinds of solar influence we must add the direct and indirect influence of earthy matter. The earthy matter also has its own kind of Yang Yin counter-tendencies and capacities, and these also metabole in the workings of character or digest-centers, changing the predominance of Yang capacities into the predominance of Yin capacities; forth and back.

Thus there are four dominant capacities and four subservient counter-tendencies to the capacities, alternately active and passive in every digest-center, always changing in predominance and subservience, for reasons which we must make clear to ourselves, sooner or later.

The **periechon** counter-balances both the direct inter-activity and counter-activity between solar substance and earthy matter, and is therefore a factor in the to-order-setting, cosmic or vital power of nature.

Both the solar Yang Yin tendencies and capacities and the earthy Yin Yang tendencies and capacities have their own character-centers and their own straight-line and circling movement. The straight-line movement goes to or from character-centers, and the circling movement intersects the straight-line movement, and encloses the character-center.

The meeting and mixing in the atomic digestion-process, the consequent unification and individuation between the Yang Yin tendencies of solar substance and the Yin Yang tendencies of earthy matter produce the all there is to life, mind and thought.

Neither the eating and drinking of earthy matter nor the breathing of solar substance, severally or jointly, could sustain the process of life and its consciousness, if the individual digest-centers

did not have to-order-setting character and power to evolve the universal tendencies of life into both the physical and mental capacities, by uniting solar substance with earthy matter in the process of assimilation and elimination.

The Yang Yin of solar substance does most of the mental character-work; the Yin Yang of earthy matter does most of the physical work. The solar, Yang capacities of substance mainly build the nucleus in cell-life, by interaction with the earthy Yin tendencies, as the earthy Yang tendencies of matter mainly build the centrosome, by interaction with the solar Yin tendencies, but there are alternations in this way of building, and then there are counteractions to each of these two ways, and because of these, there is a periodic metaboling, which so changes the process that it cannot be said that any one thing can do this or that kind of work, the fact being that the work of life is one of constant change, and that this constant change must be described in describing life as a whole process, as did antiquity, and not by merely describing this or that changeful thing or character in it, as modern thinkers do. That which could be said of a changeful character in this moment would not be true of it the next moment, as its changefulness is constant.

Antiquity, in describing life as a whole, did not consider it as apart from death; it connected the causes which sustain life with those which disturb and destroy it, and it represented these causes by active character-powers, undergoing all possible changes, from the most elementary tendencies to the most highly evolved capacities. It connected the elementary process of nature with the intellectualizing and civilizing processes; it knew these three processes as mere phases of the one world-process, and it told connected stories of the character-powers, according to fundamental principles, so that the active character could be applied with similar effect to corresponding stages of development in all three processes. The Yh-king diagrams, at least, did this to perfection, even if the sibylline school did not fully succeed. Thus, for instance, the stories and descriptions of the to-order-setting character-power would apply to the elementary working of nature as well as to the workings of thought, and to the work of civilization, or the logos-idea would apply to the physical creation, as well as to mental and social evolution. Or again: The ideas of evangelic and apostolic would apply to the outward and inward workings of physical light, as well as to those of mental activity and social regulations. Antiquity described the character-powers as inter-

active and counter-active to each other, and as building up or tearing down the physical, intellectual and social work of nature or of life. It always spoke of causes and effects in character-determinations. It formulated the natural order of the interaction and counteraction of character-powers, as depending upon principles of life and of death, and it depicted the causes and effects of the ever-recurring deviations from these principles. No modern thinker, no historic thinker has ever been able to draw anything like the old-time, comprehensive pictures of the world-process, in all its three phases, those of life, mind and civilization.

It is with a view of drawing the attention of modern thinkers to the need of comprehensive pictures of life, and of restoring the old-time ability to produce those pictures, that I go into the often tedious details of pre-historic knowledge. The details must be made known before comprehensive work can be done.

To note the changes in the workings of atomic activity and elementary cell-life requires a continuous, microscopic observation. To describe these changes properly calls for ways and means of language, which would make a continuous picture of the career of each changeful factor engaged in the workings possible. These changeful factors begin their careers as mere digest-centers in elementary life, but these digest-centers evolve oganizing powers, purposive and reflective mental capacities, determining and reasoning powers, out of the factors engaged. This upward career of factors, active in the digesting character-germs in the way of evolution, might be depicted in its outer appearance by a series of successive illustrations, but these illustrations of outer appearance can give little or no idea of the inner doings. These inner doings we need to know if we want to claim a knowledge of the world-process.

Before we pursue this subject further, we may gather a little additional light by going back to the illustration, No. 8. The old-man face depicts the predominant, solar Yang Yin (diapheromenal sympheromenal) capacities of sun-descending substance, mainly in their interaction or mixture with the subservient, earthy Yin Yang tendencies; while the moon-face depicts a certain change from the above, that is, the earthy Yin Yang capacities of matter predominating over the solar Yang Yin tendencies of substance. The Yang and the Yin tendencies and capacities, within both solar substance and earthy matter, have changeful character-power, in which takes place a twofold metaboling; the earthy Yin Yang changes into an earthy Yang Yin, and the solar Yang Yin changes into a solar Yin Yang. At the same time, the solar influence changes its relation to the earthy influence; now the one, now the other

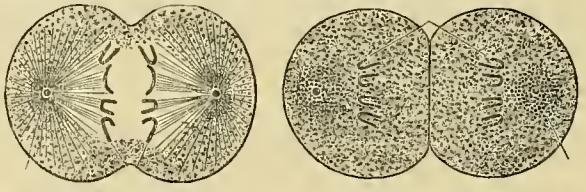
predominating. This metaboling characterizes all fermentation and digestion. For instance, cell-life is differently affected by these metabolings during the seasons of the year, and during the changes of day and night. It is this gradual but constant metaboling which produces the two kinds of double-active character-germs, shown in Ill. No. 8, the one represented in the sun-face and the other in the moon-face.

There is still another notable change, that of masculinity and femininity, which is only suggested in Illustration 8. The sun-face is decidedly masculine, the moon-face, however, only suggests femininity, being designed mainly to represent another subject. Now the red, now the blue—the masculine or the feminine—polliwog in the Tai-kih grows, and growing, its own Yang Yin counter-tendencies and capacities metabole, and metaboling, they bring about a change in the interaction and counteraction with the other's tendencies and capacities. As the growth of the one ends, the growth of the other begins. As the actual axis of digestion expends its power, the potential axis rises into power, and changes in the process of digestion and in self-division are the result.

Applying these metabolings to cell-life, we find that the nucleolus or actual digest-center in the cell, which causes it to grow, changes its predominant activity with the potential digest-center or axis—the centrosome. The centrosome goes into action as the nucleolus goes out of it.

The character-powers in cell-life metabole; the cumulatively active nucleolus gives way to the distributively active centrosome, and self-division takes place.

ILLUSTRATION NO. 38 ILLUSTRATION NO. 39



ATOMIC SELF-DIVISION OF THE TWO DIGESTION-POWERS, THE ONE BUILDING UP THE BODY AND ITS SENSES, THE OTHER THE MIND AND ITS CHARACTER.

Self-division is always of two kinds; the one kind may be called the KARYOKINESIS, the other shows the KARYOSTENOSIS. The KARYOKINESIS in the above illustration shows the division of the nucleolus (which represents the organizing character in the cell) into four little strings. The KARYOSTENOSIS shows the biaxiality of the centrosome in the one cut as an attractive digestion-power, and in the other as a repulsive digestion-power. It is this latter power which causes the division of the cell.

All atomic self-division, be it in sewerage-fermentation or in organic life, is due to a change in the alternations in assimilation and elimination by character-centers; and this alternation is always a change in predominance and subservience of polarity in the biaxial atom. The nucleolus, as well as the centrosome, is biaxial, first potentially then actually, in the way of its development.

Cell-life divides itself on the same principles on which the atoms of light divide themselves. The Tai-kih stands for both.

The solar Yang tendency predominates over the Yin tendency in the space between sun and planets, for if it did not, solar substance would not reach the earthy atmosphere; but it does not always prevail over its own Yin counter-tendency, as far as the influence of solar substance in the earthy atmosphere is concerned. When the solar substance comes into the earthy atmosphere, its penetrating Yang tendency is gradually checked by the activity of earthy exhalations, and it is eventually brought to something like a balance by the predominant, earthy Yin tendencies. It is then that the solar Yang Yin tendencies metabole in their mixture or interaction with the earthy Yin Yang tendencies, and as this metaboling continues, it produces the cyclic changes in universal fermentation and in individual cell-life, and the metamorphic changes in organic life. The cyclic changes are metaboling procedures, determined in the character-centers of solar and earthy Yang Yin and Yin Yang mixtures, unifications and individuations. For instance, during the morning, a certain character or digest-center draws a certain kind of benefit from nourishment in one way; at night it draws another kind of nourishment in another way from the mixture of earthy and solar substance. At noon this mixture is of a different kind from that of midnight, and the polar activity of the digest-center is also of a correspondingly different kind. All these differences need detailed consideration; they are due to different kinds of metaboling in digest-character and in its environment.

The active nucleolus or digest-center revolves with its enclosure in its nucleus, and it also changes its polar activity, drawing successively upon all kinds of nourishment for all kinds of benefit in all kinds of ways. If all life did not so draw, it could not develop similar character and form. It is the metaboling of tendencies and capacities in character-power, surrounded by the metaboling in the mixture of solar substance and earthy matter, which makes the needed changefulness in digestion possible; it is the changeful polarity in the earthy and solar character-germs which produces self-division, and propagates individual digest-centers and individual cell-life. The self-division of cell-life produces the differences of sex, which make evolution possible.

The solar, old-man face in Illustr. No. 8, considered as a character-germ, represents the predominance of direct interaction between solar substance and earthy matter.

The moon-face in the same illustration, considered as a character-germ, represents the predominant counter-activity of the periechon to direct interaction, and hence more of an indirect interaction between life-centers and solar substance.

For the purpose of making a momentary distinction in the cyclic workings of germ-powers, we may say that the sun-face mainly represents the character and mind-making energy. Making the same momentary distinction with regard to the moon-face, we may consider the moon-face as representing mainly a body-building character-power, but of course its counter-tendencies metabole, and it must be considered also as a kind of mind-making power in a subservient way, at least; as the above solar face, for the same reason, must also be considered as kind of a body-making power, in a subservient way. A stationary picture represents a statical aspect of a mobile Fact, and to some extent shares the defects of statical ideas. It is not fully competent to represent the changefulness of Fact.

The predominance and subservience of double-active tendencies and capacities in the cyclic counter-procedures of organic body and sense-making, and of seed-energy and character-making, change or metabole four times in every case. Different capacities predominate over different tendencies, as the seed goes into organic body-making and as the organic body reproduces the seed, but yet the metaboling of the Yang Yin in both solar and earthy substance is the all that causes the fourfold changes in predominance and subservience which characterize all cycles of organic and seed-going life.

As the analytic, abstractly thinking mind fastens the attention of thought to this or that predominance, so it attaches superior importance to it, over all other changes in predominance. For instance, some thinkers in antiquity seem to have taken directly opposite views on the subject of the periechon. Some seemingly considered its powers as superior to those of direct solar interaction, while the many other thinkers considered direct solar influence upon life as superior to that of the indirect periechon. The minority, who exalted the periechon, may possibly have held that the direct influence of the sun upon the digestion-process of life acted only as an elementary, life-sustaining power, while the solar substance, in penetrating the body of the earth, was improved, filtered, refined, re-digested in earthy ways, and therefore did the better work in the digestion-process of human life, as for instance, water generated in the rocks of the earth—sweating out of the rocks—has a more healthful influence upon digestion than has rain-water, which is partly generated in the sky, coming in part

directly from the reversion of solar substance in the earthy atmosphere. This statement is of course in direct opposition to the modern theory of rain, but the modern theory is not so true to nature as the old-time knowledge of Fact.

The **periechon**-idea, at all events, seems to have been sometimes elevated over the solar, "old-man" idea, as the **logos dioikon**, over the to-order-setting power in the process of nature, mind and thought.

The old-time ideas come in very queer dress of language, and to the superficial reader they may appear puerile and unimportant, but if properly understood, they are gisty stuff.

The main question always under consideration is why and how the organs of speech have been evolved in the human body, and why and how the human mind comes to have powers to use the organs of speech in a to-order-setting way, so as to evolve free-agency powers and exercise to-order-setting ability in the work of civilization. The facts underlying these questions are seemingly as follows:

Solar substance, with its tendencies, capacities and characteristics, on the one hand, and earthy matter, with its tendencies, capacities and characteristics, on the other hand, furnish the all-there-is to life, and in the human body and mind.

The sun, like all substance-dispersing fixed stars, has been a planet during the early stages when it built up its mass; it did this in an older solar system, as do all planets and as does the earth at present.

All planets are formed by gathering the offal of life and by this only. They are not accidental, hap-hazard collections of matter, which has never been alive. The sun, having been a larger planet in another, older solar system than is our earth, and its body having been built up of life's offal, it is fair to presume that life on it, before it became a sun, a non-living, distributing center of sewerage, had reached a far higher stage of evolution than the present life on the earth. So antiquity assumed, and it also assumed or knew that the tendencies, capacities and characteristics of life, once evolved and embodied in substantial and material existence, are never entirely destructible by any means which nature employs to restore sewerage-substance to life. The special faculties alone are destroyed, but the power to adhere to fundamental principles is retained, as evolved.

Great solar systems are not developed in one cycle out of cosmic clouds. Solar systems develop gradually, in accordance with the same fundamental principles which evolved the powers of life.*

Solar systems have a very small beginning; they develop quickly in their smallness, and they pass out of existence quickly. Little suns do not burn long; little planets become little suns quickly, and little satellites as quickly become planets, but developing, they gradually produce larger and larger solar systems, always in the byways of life. As life on planets evolves greater and greater fitness of survival, so the collections of its offal in planetary bodies become larger and larger, and so solar systems grow, larger planets becoming suns. The offal of life assumes larger and larger proportions, as life becomes more and more organic, evolving greater and greater fitness of survival under changeful conditions, and powers to perpetuate itself on planetary graveyards. In how far this is true, we can consider later. It was recognized as truth in antiquity. Therefore said our aborigines, when accused of sun-worship: "We do not mean the sun, but the old man in the sun."

*Planetary matter cannot be concentrated except through the offal of life. It is the digestive powers of life which make the collection of solid substance possible. Were it not for the activity of life, all the world would still be nothing more than amorphous nebulae. Snow and ice form, of course, without the action of life, but they form in the more or less protoplastic atmosphere of the earth within the PERIECHON, which owes its existence to life and its offal.

There are meteors and bollides, and other collections of substance of still unknown origin, which appear as mere mechanical aggregations of matter in the PRESTER, and as possible precipitates in the universal fermentation-process; but all these stand probably connected with the order of life, and they cannot affect the universal law that the counter-activity of one element cannot long prevail over the other, except in life's offal.

The elementary, non-vital collection of substance cannot produce great planetary bodies. The electric (diapheromenal) activity is too great to permit great and regular collection of substance by the magnetic (sympheromenal) activity, save by passing through protoplastic conditions, which establish the order of life.

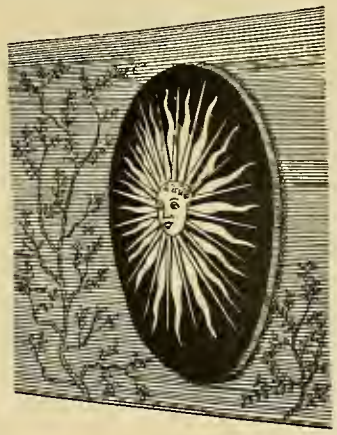
Enduring sympheromenal housings of diapheromenal glow-centers are formed only in protoplastic matter by vital digestion. These housings are now collecting themselves about the body of the earth, and as they are now doing, so have they always done. All earthy matter is made up of the offal of life.

The one law of nature has its footing in the focalization of elementary counter-forces, beginning with character-centers of life and going toward the extremes of death, of solidification of matter and dissipation of substance by inanimate character-foci.

The housings of life-centers collect themselves by sympheromenal (magnetic) preponderance; the life-centers, in as far as they retain predominating diapheromenal activity, pass into the PRESTER.

A Peruvian sun-picture (Illustr. No. 40) may help to make this subject clearer.

ILLUSTRATION NO. 40



The artist who copied this ideogram made the sun-face appear young and beardless. Beards may have been a rarity among the so-calld aborigines of ancient Peru, but a beard is the usual characteristic by which ancient art expressed the idea of the "old-man-power" in nature and civilization. The young face is certainly an error of the copyist. The notable features in the design are the combinations of straight and waved lines in the radiations surrounding the old-man head. They depict the Yang Yin idea, the idea of the dual character of substance and its tendencies to move in straight as well as in circular lines. This double-activity of substance seems to have been known to the ancient Americans, as well as to the Chinese; and in fact, to all the great thinkers of antiquity. The AHU YAX idea of the ancient Americans seems to be a deduction from the YANG YIN of China or from the DIAPHEROMENON SYMPHEROMENON of the ancient Greeks. The elementary double-activity in the imperceptible undercurrents is the foundation upon which thought has always built its knowledge of nature. The changefulness in this double-activity, the alternating preponderance and subservience of the one factor or movement over the other, was always known as an original cause of all metamorphic changes in nature.

The two vegetable growths by the sides of the sun-picture, the large one on the side toward which the solar face looks, the small one on the opposite side, denote the predominant influence which solar substance exerts upon earthy growth by direct interaction, at least, as far as vegetable life is concerned; and the lesser or subservient influence of the indirect interaction between solar and earthy substance.

The solar, old-man face in this and similar illustrations of ancient art, always expresses the universally accredited judgment that the solar substance retains the elementary tendencies, capacities and characteristics of life, which innumerable ages of progressive and retrogressive cycles of evolution have bred into it, and that hence its activity in the physical and mental digestion-process can reproduce the work which evolved it; that is, it can act as a cause in the present stage of terrestrial evolution of life. So acting, the solar substance, by interaction with earthy matter, creates the special faculties of life and mind, the organs of speech and the ability to apply speech in accordance with cosmic principles in the to-order-setting work of civilization. Thus the solar "old-man" was considered as coming to act upon earth as the "old-man-genius" of Spoken Thought—the language-giver—the logos. This is the origin of the idea of the creative WORD in the sacred cults of antiquity, the OUM of the Brahmins, the

THE CONNECTION BETWEEN PHYSICAL LIGHT IN NATURE AND LIVING CONSCIOUSNESS.

Antiquity knew the substantial activity of life to stand tropically connected with consciousness. It understood the change which physical light underwent in the character-focus of the eye. It understood the alternating interaction and counteraction between the character-centers in the active substance of light, and the character-centers in the eye, which make light visible and invisible, that is, active in consciousness and not so active. It embodied its ideas regarding these alternations in the word **enantiotrope,** the changefulness of character-centers, due to cyclic counter-procedures, and to the cutting of invisible radiations by the visible circling of light. (See illustr. Nos. 35 and 36).

The Herakleiteans said: "If it were not for the light emanating from the sun, all on earth would be wrapped in the darkness of unconsciousness."

For the above-mentioned reasons, physical light in antiquity was so widely conceived as containing the elements or tendencies of consciousness, which, by interaction with the organs of sight, became active capacities, that the word "light," or other words denoting it, were used, not only as tropes for consciousness, but as meaning consciousness directly. The same word is often used to denote light in consciousness and light out of consciousness—physical, lifeless, solar light, for instance, the word "agni" in the Vedas, or the word "light" in the Book of Genesis. The use of both words and names denoting physical light, consciousness and unconsciousness, has led to many misconceptions of Fact.

It is with the idea of light as with that of fire. Since both

HONOVER of the Zoroastrians, the LOGOS of the Herakleiteans and of our own cult. (See the explanation of the ancient American ideogram, depicting the "old-man-genius of Spoken Thought," in connection with the "boy-genius of Speaking Thought," illustration No. 4 in "Introduction to Errors of Thought").

Antiquity in every civilized land held to the above-mentioned view of fact; it held to it till the dawn of historic ages, when abstract and superficial ideas came to supplant the original insight into the working of nature. The solar, "old-man-genius" was very generally looked upon as the creative cause of that type of language which could deal with universal "reasons why," as for instance, the Sanscrit. The "boy-genius" of Speaking Thought figured, like the earthborn Maya, as the genius who invented or propagated the types of language which deal with questions how to fit the living, earthborn character into timely changes of environment, for instance, the Prakrit type.

The present living languages are not even of the Prakrit type; they are degenerate offshoots of that type. They are not naturally analytic and special types, but they are extra analytic, grammatical, non-organic types, which deal too largely with artificial generalities and particularities, and which ignore the universalities and the individualities, as well as the naturally special procedures in development and evolution.

Now as to the solar rays, in the above illustration they depict the duality and regular counter-activity within solar substance as emanating from the same character-center, and as productive of light and heat; and thereby they give expression to the ancient understanding of elementary causation.

This understanding gave the human knowing-powers an entirely different foundation from that given them by modern science. Let us examine the difference.

light and fire originate largely in the sun, and are mainly notable in solar substance, the words denoting their effect in consciousness have often been mistaken as meaning the sun, and hence the Herakleiteans, the Zoroastrians, and many other ancient cults have been mistaken for worshippers of the sun or of fire, by thinkers who did not know that antiquity attributed tendencies of consciousness to solar substance.

The fermentation-process, productive of solar light and heat, was known to play its part in the digestion-process of life, productive of consciousness; and hence the same words were used to denote the merely physical characteristics of solar activity, as well as the conscious effects in the human mind.

The ancient application of red, blue and yellow colors in mythical subjects bears ample evidence how well the relationship and partial identity of light and consciousness were understood. These colors represent both the lateral and the central characteristics of inner, atomic activity. They are character-colors; while the red, green and violet of modern science are only the so-called cardinal colors of form—of outer appearance.

Modern science has treated the phaenomena of light in the same manner in which it treated those of gravitation. It has explained both by theories, in accordance with outer appearance only, and it has finally converted the theories into laws of nature and pronounced them irrefutable.

The later, prosaically minded old-time thinkers have often fallen into the same error which modern science is making, that is, trying to deduce a universal law of nature from special, fragmentary, one-sided observations. The law of universal gravitation, as well as the undulatory theory of light, is a striking example of this common error.

The undulatory theory of light has entirely superseded the old-time Newtonian theory. The Newtonian theory yet had some little hold on the character of light; the undulatory theory has none. It is only a deduction from appearance or form of movement, which leaves the character of light entirely out of consideration.

All light originates in character-centers; all moves by reason of the radiating power in character-centers. Of course all visible light appears as waves, all radiations being invisible, as also one half of the circling movements of light, for reasons above mentioned. The invisible factors in the substance of light, however, are actually active; if they were not, there would be no field of light surrounding light-centers or character-centers. To understand the workings of light, we have to understand the workings of its character-centers. Modern science has made no attempt to do this; it has given the undulatory theory of light a clean bill of health, and its coroner's jury has pronounced the fact of radiation

from character-centers and the theory of emission as done to death by the light of modern investigation.

Scientific thought has fitted the workings of universal substance of light into the mathematically rectified ideas concerning only the appearance of so-called light-waves in refraction, diffusion, polarization, etc.; instead of fitting its idea to the world-wide Fact, it has so belittled Fact as to fit the undulation-idea. It has worked its illogical "Bed of Procrustos" to a finish, but it has not told us why and how light becomes visible or remains invisible. It has established no connection between light and consciousness, in fact, it has not told us how and why any acts of nature become knowable, and not having done this, it has not given the mind any explicit footing in fact-knowing, and it has deceived itself by plausible theories, all of which misrepresent the character of Fact.

Modern science, having taken credit for the achievements of practical common-sense minds, which have discovered the uses of spectacles, microscopes, telescopes, electricity, steam-power, etc., has flattered itself into the belief that all its theoretical work is of the utmost practical value.

Modern science does much aimless and unprofitable work, and it leaves much undone by which it could benefit mankind. Too much scientific thought is being wasted on unimportant subjects, and too little attention is being paid to important matters. The libraries are filled with treatises on speculative subjects, which have no bearing on Fact. Phaenomenal observations are properly represented, but are the active characters, productive of phaenomena, ever so represented? Are they not always either ignored or misrepresented? Modern science is great on drawing general and particular conclusions from phaenomenal activity, but it cannot distinguish between generalities and universalities, or between particularities and individual character. It substitutes some faulty deduction for actual knowledge of Fact. It sees, for instance, that the planets rotate and revolve, and it invents a theory to explain this rotation and revolution, but it leaves the atomic character-power, which determines all rotation, out of consideration. It writes learned treatises on the mechanism of the universe, but there is nothing mechanical in the world save the mechanical work of man. It exerts itself to explain the universal metaboling of substance, but it does not consider the character in which the metaboling occurs. It sets on foot an undulatory theory of light, without connecting it with the causes of nature's mobility and motivity.

The phaenomena of light are connected with all other phaenomena by one chain of causation, and the links in that chain are only to be found in atomic activity and in the changefulness of that activity. There is nothing actually taking place in the world which is not poten-

tially given in atomic activity. There could be no waves of light if there was no atomic activity

The atom is the microcosm of the universal macrocosm; it is the world-egg of antiquity; it has a ferment or digest-center and a determining character, and its activity is controlled by fundamental principles.

All special faculties of sense stand connected with atomic activity; all are products of special kinds of development, of atomic tendencies and capacities; and the conscious work of all depends on the connection in which atomic activity in organs of sense stands to atomic mobility and motivity in the environing characters and forms.

The straight-line and circling movements, which characterize atomic activity in elementary, unconscious substance, bring about a connection between the atomic character-centers in the world without and the atomic character-centers within the organs of sense. In the atomic character-centers without, consciousness is only a tendency, while in the atomic character-centers of the senses it is an actual capacity. That which converts the tendencies to consciousness into actual capacities is the change which character-centers undergo from the universal fermentation-process of sewerage into the individual digestion-process of life.

The organs of sense are structural forms of individual atoms or cells, and the atomic character is the conscious determining principle in these forms. The radiating and penetrating Yang and the circling and concentrating Yin are the latent forces by the side of the individual determining power, and these latent forces connect the atoms of life with the atoms of death—sewerage-fermentation with vital digestion.

The eye takes in the light-waves within its range; the ear, the waves of sound; the touch, the waves of heat, etc., not mechanically, not unconsciously, but vitally and consciously, to some extent. The nose and palate take similar note of other atomic characteristics, which concern the vital digestion-process; they deal in special ways with the material and organic work of digestion, just as the senses of eye, ear and touch deal with the substantial, mental workings of digestion. Thus all the senses are special agents of the mental and physical digestion-process in life, and when we deal with light we must not look upon it as a mechanical thing of wave-motion merely; we must not imagine the process of refraction, of polarization, the breaking into ordinary and extraordinary rays, etc., as a mechanical process, but we must look upon these phaenomena as phases of atomic activity in the universal fermentation and digestion-process, and we must remember that these phases stand inseparably connected with the four universal phases in nature's activity. A ray of light could not break into ordinary and extraordinary rays when sent through a crystal, the

extraordinary ray could not be absorbed by such things as tourmalin, if light were not in a state of fermentation and were not composed of different constituents, such as Yang Yin; if it were not constantly assimilating and eliminating something, by virtue of character-centers. Therefore to coin the undulatory theory of light into a law, to take the material of sense-observation and put the stamp of vital validity upon it is not dong justice to facts. It is the same unsavory practice which was ever condemned in antiquity. It is making universal laws out of particular ideas. It is an attempt to produce a lifelike picture out of abstract, characterless and lifeless ideas. It is manufacturing intellectual mosaics, as did the school of Alexandria.

THE IMPONDERABLE SUBSTANCE IN THE UNDERCURRENTS OF MATERIAL EXISTENCE HAS ACTIVE CHARACTER-CENTERS, IN MOBILE FORMS ENCLOSED.

All substantial, as well as all material existence has both character and form, because all mobility and motivity is of a twofold kind, the radiating and the circling kind; the former making mainly for evolution of character, and the latter mainly for development of form. This antiquity has symbolized by the cross within the circle. The explanation of the various cross-in-circle symbols, hereafter produced, will probably suffice to explain the subject of character and form in its connection with the radiating and circling movements of substance and matter.

The interaction and counteraction of character-centers in imponderable substance with the character-centers in ponderable matter characterize all causation in nature, life and mind.

The substantial undercurrents affect the workings of material character-centers only because the substantial character-centers in them interact with and in part counteract the material character-centers.

The ignition of a material character-center entails in part the extinction of a substantial character-center; and vice versa. Where there is much substantial activity and little aggregation of matter, there is rapid repetition of ignition and extinction. Where there is much aggregation of matter and but little penetration by active undercurrents of substance, there is slow ignition and extinction of material character-centers.

The ignition and extinction of character-centers takes place not only in dry but also in wet matter. The character-centers in wet matter are heat-centers in part, as well as those in dry matter; they are heat-centers in their lesser, subservient part. The ignition and extinction of these heat-centers is always the inner and imperceptible cause why moist or liquid matter changes its temperature—why water evaporates or freezes, etc.

All character-centers are concentrations of double-active tendencies and capacities; and therefore they make in part for the **dry and hot,** and in part for the **wet and cold.** In dry matter the former capacity predominates over the latter tendency, and in wet matter the reverse is the case.

In the interaction of the **dry and hot** with the **wet and cold,** such as the interaction of fire with water, for example, the predominance and subservience of double-active tendencies and capacities in the character-centers of each is changed; and in consequence the **dry and hot** assumes something of the **wet and cold,** and vice versa. Fire heats water and converts it into vapor; water cools fire and perhaps puts it out. Such extremes of material existence as are fire and water can interact only because they are both concentrations of similar counter-tendencies and capacities, and these interact and counteract in their opposed character-centers. But all the changes consequent to interaction of dry and wet matter result from the interaction and counteraction between the substantial and material character-centers.

The character-centers of wet and cold or hot and dry matter, such as are water and fire, are not the only ones to be considered in the changes consequent to interaction of material things; the character-centers in the imponderable and invisible substance must also be taken into consideration when natural causes are to be made known. They are the latent, imperceptible factors in the causes of patent changes. Vapor has much heat bound up in its centers which is not apparent, not perceptible, but which can be regained by condensation. The heat so bound up is latent; it does not appear because it is held within enclosures. The same thing, which takes place in the conversion of water into steam or vapor, also takes place in the conversion of water into ice, in the reverse way. The burning out of heat-centers in water radiates some heat into the environment, and causes a change of ferment-centers in the cooling water and hence its conversion into ice.

The same change of heat-centers takes place in the formation of clouds as well as in the making of rain; it takes place in the conversion of all matter into other matter, such as the petrifaction of wood and the crystallization of rocks. Heat-centers of various character, by ignition change the mass which surrounds them into a character similar to or even the reverse of their own.

Heat-centers are in everything, and because they are there, it is possible to change the temperature in all things. All things can be warmed or cooled off.

The Herakleiteans explained the ignition and extinction of heat-centers as the taking hold of (**aptesthai** or **anaptesthai**) material character-centers by substantial character-centers, or being taken hold of by them. This taking hold of was understood to

start every procedure in the universal digestion, fermentation or combustion-process, whether it be a wet or dry procedure, in the world-process.

The substantial or material enclosures of heat-centers are always more or less elastic, and permit of warming or of cooling off within certain degrees, without destruction of tissue or structural enclosure.

Matter is always a thing of structure, containing heat-centers, and the heat-centers make possible all phaenomenal changes of matter . The heat-centers may be of very low temperature, and they may even make for lower temperature, as they do in the solidification of matter, yet they are heat-centers; they give matter its capacity for changeful temperature.

The universal presence of heat-centers has attracted much attention in antiquity, and many faulty conclusions have been drawn from this universally known fact, by thinkers who could not think rationally from cause to consequence. All the famous Greek and Roman philosophers belong to that class of thinkers; most of them misconstrued the knowledge of heat-centers under various names and designations, denoting the crucial, critical or crossing-point, with which civilized life has at all times to deal, because of its changeful conditions and outer relationships. The Stoics, for instance, overworked the **ekpyrosis** idea, and, like many others, conceived the idea of the coming of great cataclysms.

We must be careful, in drawing the attention of our thought to one pole of nature's activity, or to any one point, not to withdraw it entirely from its opposite pole or point, else we get a bias in our way of judging Fact. Modern science has done this in a remarkably absurd manner, by assuming the so-called law of gravitation to be a universal law. If the law had universal application the starry heavens would collapse.

We must remember that all things are bi-polar. Where there is a center of gravitation, there is a center of dissipation. Where there is **ekpyrosis**, there is **exygransis**; where there is a making toward fire, there is a making toward water. Where there is electricity there is magnetism, and where there is magnetism there is electricity.

The predominant capacities and the subservient tendencies of magnetism, and the subservient tendencies and predominant capacities of electricity are inseparably united in fourfold activity, but this activity manifests itself only in one phaenomenon. As with electricity and magnetism, so with light and heat. The circling substance of light, with its tendencies and capacities, is inseparably connected with the radiating and focalizing tendencies and

capacities of heat, although light and heat may manifest themselves as separate phaenomena. The character-centers in the various organs of sense take only special note of predominating capacities.

Where there is great aggregation of matter, as there is in sun and planets, there is great sympheromenal preponderance, which we may call gravitation or magnetism; but this preponderance is not absolute; it has its counterpart in great diapheromenal activity of rarefying substance. When we look upon the sun as a center of attraction we must not forget that it is also a center of repulsion, consequent to diapheromenal activity and dissipation of its own substance. If it were not also a repulsive center, the comet's tail would not point away from it as the comet passes around it.

There are two phaenomenal sides to every story, and there are also two latent sides to it, which we must not overlook. There are four viewpoints, from which all facts must be investigated, if we want to get a clear understanding of active character, be they facts in nature or facts in social life, depending for their regulation upon intellectual determination.

In observing the formation of elementary cell-life, we may note much the same phaenomena which occur in vinous fermentation. We may note that something radiates from the center of the cell towards its periphery. We may also note that certain dark germ-spots form in the rotating mass between the center of the cell and the limits of its activity. These germ-spots grow and eventually they may break through the confines of the cell by so-called fission or otherwise, forming new cells, or they may ignite within the old cell. (See illustration of cell-life in appendix).

The formation of new germs, forming within the confines of the old cell, corresponds to the formation of planetoids and of satellites in the planetary system.

If properly understood, the many phases in which the process of nature presents itself are but evidences of the same universal principles of procedure.

What we can see through the microscope as taking place in cell-life, we can see through the telescope as taking place in the planetary system. The sun is a heat-center; it distributes its substance throughout the planetary system. The rotatory planets absorb solar substance; they grow like the germ-spots within cell-life. If we could look long enough, we would find that the planets come to assume a solar character, as does Jupiter even now, and that eventually one planet after another will either go into ignition within the confines of the planetary system or break through its confines to form a new planetary system of its own, with its satellites as planets.

The whole planetary system may be said to appear as but one cell in the body of the universe. Sun and planets act apparently as do the life-centers and germ-centers forming within cell-life.

Most of that which has been said so far with regard to the world-process has either been a mere matter of observation of phaenomena or a sketchy hinting at substantial undercurrents, mainly given for the purpose of drawing the attention of thought away from fixed ideas, or for the further purpose of preparing words and a verbal foundation for a comprehensive view of the world-process.

The sensible but analytically working mind cannot easily bring itself to conceive the existence of imperceptible undercurrents. It cannot realize that the great concentration of matter, as in suns and planets, entails the great rarefaction of what I have so far called substance. The sensible mind, not being able to see substance, cannot bring itself to believe in its existence; and hence it cannot understand the interaction and counteraction between rarefied substance and material aggregation. And if this interaction is not clearly understood, the active causes in the world-process cannot be understood. To understand natural causation means to understand the constant interaction and counteraction between rarefied substance and material things.

Modern science has recently arrived at a stage where it begins to think about undercurrents and latent forces. The discovery of the phaenomena of electricity has drawn the attention of modern thought to such imperceptible things as the electric field. It is in this direction of modern thought that it may be well to pursue for a while the study of the world-process. It may be well to connect the dynamic aspect of the world-process with electromagnetic phaenomena. Of course, such connection will only give a one-sided view of it. The world-process is no more a thing of merely dynamic changes than it is a stationary thing, as science has so far made it appear. It is a process productive of life and of death; in it are active the reasons and principles why there is going into life and out of it into death.

THE DYNAMIC ASPECT OF THE WORLD-PROCESS.

A Han-lin scholar said to me: "If we understood (meaning the Han-lin College) the character of Yang Yin thoroughly, if we had a complete definition of Yang Yin, we would know the origin of electricity and magnetism, for the Yang Yin is all that is active in nature."

That Han-lin scholar had faith in the virtues of the old Fu-hsi school, but, like every other Han-lin scholar, he did not thoroughly understand it.

The thorough understanding of the world-process depends upon the understanding of two active elements, and the understanding of these elements depends on the complete and thorough definition of the words denoting them. If the Han-lin college had a complete definition of Yang Yin, it could have made the world-process known to everybody. If Herakleitos had been able to give the world a complete definition of "diapheromenon sympheromenon", he would not have been called "the obscure." He would have been able to make everybody understand the world-process, and philosophical idiocy and quibbling sophistry could never have corrupted the intellectual development of our race and brought indescribable miseries into civilized life.

The knowledge of how to use language and define words is all-important to fact-knowing, truth-telling and right-doing, and to the welfare of civilization.

Before we can venture on the comprehensive definition of such words as "Yang Yin" or "diapheromenon sympheromenon," which explain the elementary tendencies and capacities of nature's activity, we must take a dynamic aspect of the undercurrents of nature's activity by words now in use. We must explain the origin of the phaenomena of electricity and magnetism, and explain that part of solar and planetary activity which compares with the action of a dynamo.

To so explain nature we must, for the time being, separate her cosmic from her vital procedures, that is, the apparently non-vital procedures from those that are apparently vital. We must separate the phaenomena of death from the phaenomena of life; but in doing this we must not forget that the order of death—the cosmic order — is inseparably connected with the order of life. We must remember that the law of life is one and the same thing with the law of death, differing only in predominance of principles of procedure. In cosmic and non-vital procedures there are only universal and individual tendencies and capacities in action, while in vital procedures there are also organizing and seed-going tendencies in action as predominant capacities, that is, predominant over the universal and individual tendencies and capacities in inanimate nature.

The heat-centers in dead substance metamorphose into character-germs of living tissue.

All life is organic and seed-going.

All death makes for aggregation or dissipation of sewerage-matter and for its eventual return to life.

Cosmic activity, separately considered ,appears as non-organic and merely as a sewerage-system to organic life. The germs of its activity appear only as foci of mobility, and as making merely for dissipation or solidification of matter. The sun makes for

dissipation of matter; the planets for solidification. We have only to deal with the tendencies and capacities for dissipation and solidification when we attempt to explain the solar and planetary activity apart from the phaenomena of life.

The counter-tendencies and capacities, which characterize the activity in all matter, and which cause the four-fold procedures for different purposes of production, notable in fermentation, may be analytically divided. Such division, of course, is an intellectual artifice. It draws the attention of thought to but one part of the causes active in nature, but it facilitates the elucidation of that part. It simplifies the explanation of the world-process. It lays a foundation for the support of its fuller knowledge.

The counter-tendencies and capacities which make for dissipation and solidification of matter are inseparably united. Dissipation occurs only when its tendencies develop into predominant capacities over the solidification-tendencies, and solidification of matter occurs only when its capacities predominate over the dissipating tendencies. In the sun, the capacities for dissipation predominate over the tendencies to solidification, while in the planets the capacities for solidification predominate over the tendencies to dissipation.

The making of either suns or planets, then, is the result of changeful predominance and subservience in the counter-activity of elementary tendencies and capacities. The elementary counter-tendencies are continuously double-active and passive, both in sun and planets; and eventually in the course of cyclic development, in which all things partake, the predominating capacities are always changed into their counterpart, becoming subservient tendencies.

All capacities expend their energies in action, and convert themselves into tendencies, subservient to the counter-active capacities.

It is this change which converts solar activity into planetary activity, and vice versa. It makes suns out of planets and planets out of the sun's dissipated matter. It converts electric phaenomena into magnetic phaenomena, and magnetic phaenomena into electric phaenomena. It is notable in all changes of aggregation of matter. It converts actual heat into latent heat and latent heat into actual heat. It is always a partial binding in and a partial loosening out, an assimilation and elimination of both substance and matter, moved by counter-active and dividing tendencies and capacities.

To make this changefulness of matter thoroughly clear requires considerable explanation of electromagnetic and biological phaenomena, much of which must come later.

No elementary tendencies or capacities of substance are ever destroyed or entirely eliminated; they only change in apparent and in latent activity or passivity. The active capacities show themselves because they predominate over the latent tendencies which are subservient. **Life is evident, yet are the tendencies to death latent in every nucleus of cell-life.**

Life is a double-active digestion-process; its digest-center takes in foreign, inanimate substance and matter, to be in part assimilated and restored to life, and in part eliminated to be sent deathward, together with part of that which was alive within the sphere of the digest-center's activity. The whole digestion-process is a change from tendencies and capacities of death to tendencies and capacities of life, forth and back. As with tendencies and capacities in the digest-centers of life, so with tendencies and capacities in the ferment-centers of death. Wherever the capacities of electricity show themselves, there the latent if not the patent tendencies to magnetism are the latent restraining power; and wherever magnetism shows itself, there the tendencies to electricity are bound within it. All things are electromagnetic; all are bipolar and double-active in their elementary tendencies; they can solidify their substance or they can dissipate it.

There are four features in magnetism and electricity, as there are in light and heat, and in fact in every phaenomenal force, therefore both electricity and magnetism may be called positive and negative. The character of light and heat might also meet with similar distinctions, for light, as well as heat, has a twofold and double-active character. Light circles predominantly toward its character-centers and subserviently away from them; heat radiates predominantly from character-centers and subserviently toward character-centers. There is a solar, substantial and a planetary, material side to magnetism and electricity as well as to light and heat, and there is a direct and an indirect action and counteraction in the coming together from the two sides, the substantial and the material.

Aggregation and dissipation of matter in the ferment-procedures of death correspond to assimilation and elimination in the digest-procedures of life; and because of this correspondence the phaenomena of digestion in cell-life may serve to elucidate the phaenomena of light and heat and of magnetism and electricity. This whole subject falls properly into the present extension of the study of catalysis; it will be very much more easily understood after the ancient Greek idea of the **periechon** is more fully elucidated, for the concentration and radiation in death, as well as the assimilation and elimination in life, are not merely products of bipolarity in character-centers, but they are really products of biax-

iality; and this biaxiality is given to all character-centers by the **periechon.** (See the explanation of the word **periechon** in appendix).

The new metals, radium, uranium, thorium, etc., are not the only metals, and presumably elementary substances, which dissipate their state of aggregation by radiation. All other matter in all other states of aggregation has similar tendencies and capacities for dissipation, although in a very much less and often imperceptible degree. The imperceptible substance always causes some perceptible dissipation of matter, as it also causes some solidification.

If the spectral analysis tells the truth, then probably traces of all existing metals can be detected in the atmosphere of the earth. It seems that many have already been so detected. All metals radiate and dissipate substance constantly, but does this radiation always carry along particles of the original, unchanged matter, or does it only produce slow changes in character-centers, which entail changes of matter? Does radiation necessarily diminish the bulk of matter? Is it not usually more of a substantial kind, like that notable in the magnetic needle, than of the material kind, attributable to radium? As metals radiate substance, so do they draw on the diapheromenal sympheromenal field, and so do they cause undercurrents to pass through them; from these undercurrents they assimilate substance, by virtue of their character or heat-centers, while at the same time they eliminate it.

Water, evaporating, dissipates its substance as it becomes vapor, and solidifies it as it becomes ice. All earthy materials decompose similarly, and they also undergo similar changes of dissipation and solidification in course of time.

The outer and accidental causes, which produce dissipation of matter, can act only because the tendencies to dissipation and solidification of substance are present within the stuff acted upon. Wood could not be burned up by touch with fire, if the tendencies to combustion were not latent within it. Water could not freeze if the tendencies to solidification were not latent within it. The seed could not take hold of the soil and grow, if its latent or subservient tendencies toward growth would not naturally change into predominant phaenomenal capacities.

In our modern way of thinking, we pay too much attention to the predominating phaenomenal capacities, and too little to the latent and subservient tendencies; in fact, we ignore the latter, and because we do so we express our ideas only in half true ways. We speak of electricity as if it could exist apart from magnetism, and of magnetism as if it could exist apart from electricity. We speak of life as if it could exist apart from death, and of death as if it could exist apart from life. We speak of the sun as if its

activity could exist without planets, and of planets as if they could continue to exist without a sun. This segregation of inseparable factors of existence by single-active thought is the result of a delusive peculiarity of analytic language.

That which lives is always going death-ward, and that which is dead is always going toward life. Electricity is always going in opposition to magnetic development, and magnetism is always going in opposition to electric development.

The sun is always making for planetary development and the planets for solar development. In whichever of these two directions the existing substance moves, it makes a something new — something going toward life out of waste or sewerage — in accordance with natural principles of death, which **cross-cut** the principles of life.

THE COUNTER-ACTIVITY BETWEEN PRINCIPLES OF LIFE AND PRINCIPLES OF DEATH.

The principles which control the counter-movements of substance, from sun to planet, from planet to sun, receive the offal of life and prepare it for restoration to life. The principles which control the counter-movements of living substance, from seed to organic development and from organic development back to seed, always draw on dead matter and always produce offal or deadened matter.

The principles of death always cause the disinfection and burning up of the sewerage of life, be it in minute or in solar-planetary ways. The principles of life cause the conversion of living bodies into waste or sewerage. The principles of death move towards the principles of life and the principles of life toward the principles of death, but in so moving, they also cause a partial rebound of the ever-dividing atomic substance in the opposite direction, thus making all atomic movement a fourfold procedure. Where the principles of life cross the principles of death in atomic activity, there they convert the elementary ferment-germs into digest-characters, and there they produce something new, by perfected assimilation and elimination. The something new which they produce out of the interaction of solar substance and planetary matter at this crossing-point is protoplasm moving toward consciousness—"**thymos**:" the gist of life, which in the way of digestion, reduces the balanced sway between the hot and dry and the wet and cold in inanimate substance and matter, reanimating it. "**Thymos**" is the reverse of that which life produces out of protoplastic substance; viz., waste and sewerage. The upward digestion (the **anodos**) reanimates the light-heat substance coming from the sun by unifying it with the wet-cold substance coming from the

earth, while the downward digestion (the kathodos) eliminates living substance, sending it deathward.

Thus all things, in state of either solidification or dissipation, proceed in four directions at once. No thing of material existence can retain its form forever; it must change from solidification to dissipation and from dissipation to solidification, but it can only undergo these cosmic changes by cross-cutting the way of life, and by making both sewerage and protoplasm. The procedures of change and of making protoplasm or waste are always cyclic counter-procedures, that is, they are movements in a course of development and simultaneous envelopment, which leaves wasted matter on either side of the cyclic course of life's procedures. The cyclic procedures of death cross the cyclic procedures of life at right angles ,as the Chinese graphically depicted it. Life does not remain life; it goes to waste; its waste does not remain waste; it is first disinfected, then burned up, and again restored to protoplastic character in the sidereal process, as we will clearly see later.

Life is a compound of substance and of matter coming partly from the sun and partly from the earth. That which comes from either side into the way of life is an offal of former life, disinfected and restored to protoplastic character.

The cross-cutting of cyclic movements in life or death is most apparent in sidereal phaenomena, and most easily explained by elucidating them, but it takes place in all phaenomena of life and of death. It could be elucidated by the process of vinous fermentation, or even by the phaenomena of electricity and magnetism.

Every current of electricity breaks through and changes magnetic holdings, and thus breaking through and changing magnetic holdings, it also changes itself, gathers and wastes its own strength in part, and also gathers and wastes that of the magnetic enclosures. The wet-cell process of generating electricity plainly illustrates this fact.

The words electricity and magnetism are here used as only denoting tendencies in the substantial undercurrents making for the development of the electric and magnetic forces, and not as meaning the fully developed forces as they appear in phaenomena.

The phaenomena of electricity and magnetism are produced in the penetration of matter in certain states of aggregation by the substantial undercurrents. Electricity seems to be a very distinct thing from magnetism; it seems to have little or nothing to do with magnetism; but yet both are inseparably connected in the causes of their origin. The matter which generates phaenomenal electricity usually does not show any phaenomenal evidences of magnetism. Copper wire, for instance, conducts electricity, yet it is apparently non-magnetic. But yet copper wire owes its solidity,

as does all solid matter, to sympheromenal, gathering-in tendencies and capacities, of which magnetism is a phase; these tendencies and capacities, however, are no longer as active in it as they once were; they are dormant, at least in part. The dormancy of all once-active capacities in matter pursues a cyclic course of development, getting more and more dormant for a time, then metaboling and beginning to get active again.

The active, gathering-in capacities, which produced some metals and other earthy materials, are always more or less dormant. Sometimes and in some things they are so dormant that they cannot be readily restored to activity, hence magnetism does not show itself in them, while in other things it is easily aroused to activity. For instance, in ordinary iron the magnetic tendencies are dormant, yet they can be aroused, so as to become active capacities. Some things are further removed from the original causes which produced them than are others, and some things are so knitted that elementary tendencies do not easily show themselves in them.

The solidification-process is a knitting together of radiating and circling procedures, and these procedures come in as many different combinations as do the tendencies and capacities of substance in its interaction and counteraction with matter. This interaction and counteraction is always a phase of the universal fermentation or digestion-process, but its products often become subjected to conditions of environment, which largely interfere with the free interaction of substance and matter. The substantial undercurrents pass more readily through some aggregations of matter than through others; when they pass through slowly and with difficulty, then material changes do not take place easily and quickly, as, for instance, deep within the earth the aggregate matter does not change so rapidly as it does nearer the surface, but still it changes.

THE ORIGIN OF ELECTRICITY AND MAGNETISM IS TO BE SOUGHT ON THE ONE HAND IN THE DIAPHEROMENAL SYMPHEROMENAL UNDERCURRENTS OF EXISTENCE, AND ON THE OTHER HAND IN THE KNITTINGS OF MATTER WHICH THESE UNDERCURRENTS PENETRATE, DIRECTLY AND INDIRECTLY.

Electricity and magnetism are not generated in the imperceptible undercurrents; in them they exist only as tendencies, as do the tendencies to light and heat; they become active capacities only by interaction with the knittings of aggregated matter. The solar capacity for dissipation produces electric tendencies, as it also produces the tendencies to light and heat; and the planetary capacities for concentration of substance produce the magnetic tendencies, as also the tendencies to moisture and solidification. Both the solar and planetary capacities do this in a predominant way, but

in a subservient way both do the reverse also, and the interaction of solar and planetary activity mixes the opposite tendencies in ever changeful ways, by interaction with whatever there is of aggregate matter between sun and planets.

The solar fire is of such intensity that it reduces the aggregated states of matter about the body of the sun into imperceptible substance, so that little or nothing remains which can be called aggregated matter. Hence, the most active elementary substance, the substance of excessive diapheromenal tendencies, originates in the sun, and there it has the greatest of penetrating powers and the least of sympheromenal resistance, as also the least interaction with aggregations of matter—with matter in states of gaseous aggregation. As the solar substance is dissipated by radiation, so it fills the space intervening between sun and planets, and so it meets more and more sympheromenal resistance from the undercurrents coming from the earth, and also more and more gaseous resistance from earthy, material exhalations.

As it reaches the planets it is in part absorbed by them and incorporated into planetary matter. As it passes from the sun by the planets and beyond them, it gradually loses its radiating capacity. The dissipating tendencies become subservient to the solidification tendencies, and the planetary system becomes enclosed in a uniform band of magnetic gases (anamma)—amorphous nebulous substance and lifeless matter.

The dissipating capacities of the solar substance gradually lose their predominance over the solidification tendencies, as they radiate from the sun through the long distance of planetary space, and the solidification tendencies gradually become predominant capacities over the dissipating tendencies. This change brings about the phaenomenon of magnetism, which manifests itself as gravitation on this earth.

The same diapheromenal sympheromenal substance, acting under different conditions, propelled or controlled by different character-foci, penetrating through different resistance of enclosures, and interacting with different material character-centers, produces all the different phaenomena of fire, light, heat, electricity and magnetism, and again converts rarefied substance into all more or less dense states of material aggregation. The undercurrents do not remain undercurrents; the digestion-process of life, if not also the fermentation-process of death, reconverts substance partly into perceptible matter, just as the sun converts perceptible matter into imperceptible, substantial activity.

Taking a phaenomenal view of both the counter-tendencies and capacities to dissipation and to solidification, we may call them

electric in solar activity and magnetic in planetary activity; and since these tendencies are inseparably united, we might speak of an electromagnetic sun and of a magneto-electric earth, to denote the change in predominance and subservience of imperceptible counter-tendencies and perceptible capacities. This changeful predominance in the undercurrents of nature's activity makes all existing things bi-polar, and capable of simultaneously assimilating and eliminating substance, that is, it makes them double-active.

Every existing thing, be it ever so dead, as rocks, metals, etc., can assimilate and eliminate substance and does do it, as is apparent in the change of temperature, when something is assimilated and something eliminated, and contraction or expansion, absorption or radiation of heat takes place.

ILLUSTRATION NO. 41

ONE PHASE OF AUTOMATIC ACTIVITY IN SUBSTANCE CAN BE SEEN IN ALTERNATING CURRENTS OF ELECTRICITY.

All existing things are bi-polar and counter-active in their movements. The electric, as well as the magnetic currents, are bi-polar. There is positive and negative electricity, as well as positive and negative magnetism. The diapheromenal movements appear as electric, if certain character-foci, developed in a certain way, are active within them; and the sympheromenal movements appear as magnetic if other character-foci, developed in another certain way, are active within. But wherever there is electricity, predominantly active, there is magnetism, subserviently active, and vice versa. This inseparable union makes the fourfold procedure in all substantial activity. The currents run predominantly forth and back in a line of least resistance or guidance, but they act also subserviently in lateral directions to the line; were it otherwise, they could not be noted from all sides.

The photograph shows greater lateral activity in some sparks than in others, due to the alternating of the counter-currents. The subservient, magnetic tendencies prevail alternately, as the electric currents break through their invisible magnetic housings. The magnetic housings roll along in circles, in accordance with their revolving character, as the electric currents tear through them, and give them a roundish appearance, known as a wave-motion.

The rapidity of electric wave-motion, by self-induction, is not necessarily greater than in sound-waves; they can be counted by a tuning fork of known vibration, or by the well-known positive or negative dust-experiment; they appear as yellow and red sparks to the eye.

It is not the rapidity of wave-motion which produces the sensations of light, sound and electricity, but the kind of character-foci active in the substance.

That which appears as light, sound, heat, electricity, etc., to the senses, is all made of the same substance, active in different conditions of matter; the apparent difference is due to character-foci in the substance and matter.

The dissipating capacities of substance always move in straight lines, radiating from the centers as do heat and electricity; the solidification-tendencies, accompanying this movement, always move in minute circles about and toward a center, as do light and magnetism. (See cut of magnetic movements.)

Since both the radiating and solidifying tendencies are inseparably united in substance, it follows that the movement of substance from the sun is a combination of straight lines and of circles, restraining the straight-line movement.

The rapidity of straight-line movement is greatest near the center of its origin and least near the end of its journey, and the circular movement is least near the center of radiation and greatest about the foci of solidification, such as are the planets.

If we call the most rapid, straight-line, dissipating movement electric, and the most rapid of the circular solidifying movements magnetic, as we may do (leaving the material tendencies out of consideration), we may say that the electric current passes continually through magnetic enclosures from all sides, with great ease near the sun, with much difficulty near the planets. We may say that magnetism continually resists electric currents and cuts these currents up into minute particles; into so-called electrons — minute elementary sparks . These sparks, in the confinement of their magnetic circles, gather strength from the incoming current behind them, and as they gather strength they form larger and larger foci, gaining power to break through one magnetic enclosure, only to be caught by another. This breaking through magnetic enclosures produces the alternating currents of electricity under some conditions, and under others light and heat waves. The varying power in magnetic enclosures to resist electric currents causes the shorter or longer waves which produce the phaenomena of color.

In fully considering the alternating currents of electricity,

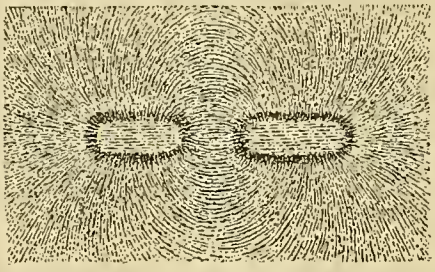


Illustration No. 42

THE MAGNETIC ACTIVITY IS ILLUSTRATED IN THE ACCOMPANYING CUT. IT SHOWS THE CIRCLING MOVEMENT, PRODUCED BY THE PREPONDERANCE OF SYMPHEROMENAL TENDENCIES AND CAPACITIES OVER THOSE OF DIAPHEROMENAL COUNTERACTIVITY.

The illustration shows a well-known experiment of iron-filings placed over a glass plate or sheet of paper, with the ends of a horseshoe magnet beneath. Cause the plate or paper to tremble, and the filings will arrange themselves in circles, as seen in the illustration, showing that magnetic force acts in circles.

we must deal not only with electric tendencies but also with electric capacities, and we must not think away the inherent forces in earthy matter from the inherent forces in solar substance. We must remember that both substance and matter have electromagnetic tendencies, and that these tendencies become dominant capacities only in the interaction and counteraction of solar substance with earthy matter. The electromagnetic field in the atmosphere of the earth is not produced by dirct solar activity alone, but also by indirect solar activity—by the periechon. The electric tendencies coming from the earth move in opposite directions to those coming from the sun. These tendencies counteract each other, causing the phaenomena of alternating currents in electric forces.

If we leave the phaenomena of life or their underlying causes out of consideration, and consider the tendencies and capacities for dissipation and solidification of substance to be only of a non-vital, electromagnetic character, the whole planetary system will appear as a huge dynamo, of which the sun is the motive power, and the planets the armature. The planets revolve by the circular movement of their own magnetic energy, and they gather in the substance of the sun from the electric field in their environment, partly assimilating and partly eliminating it, as the currents pass from pole to pole, predominantly in one way, subserviently in an opposite way ,producing constant changes in the inner substance of the planets. (See cut of feldspar.)

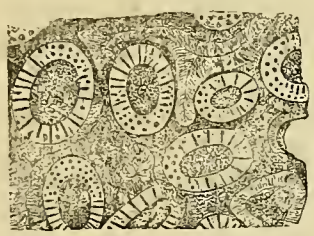


ILLUSTRATION NO. 43

THE ACCOMPANYING CUT DEPICTS A CALCARIOUS FELDSPAR-FORMATION, A SECONDARY FORMATION OF ROCKY MATTER.

All rocky substances undergo frequent re-formations in the slow fermentation process of earthy matter, consequent to its penetration by imponderable solar substance. All rocks originally were offal of life, and the later rock-formations all show more or less evidence of their origin. They show less evidence of their origin from life, the more re-formations they have undergone. The so-called azoic or primary rocks show none, yet they are all in a state of slow fermentation. All change their character and form by slow fermentation. They are not merely conglomerates or fragments, accidentally produced and accidentally brought together; their re-formation shows the radiating and circling activity in the interaction and counter-action of solar substance with earthy matter.

Similar re-formations are produced in all inanimate matter, by reason of the dia pheromenal sympheromenal counter-currents passing though it. The circles seen in the illustration are the product of the radio-activity of diapheromenal tendencies and capacities, held in check by those of sympheromenal counter-activity.

All dead things in nature undergo changes, by reason of the penetrative powers of diapheromenal sympheromenal substance, emanating from the sun. That which phaenomenally appears to be only a change in temperature produces gradual changes in structure, and these changes are always due to the penetration of aggregate matten by imponderable substance.

The motive power emanating from the dissipation of solar substance undergoes cyclic changes, as do all things, and these changes produce all sorts of phaenomena; the most notable of these is that of planetary revolution.

Planets are not things which have been accidentally hurled into space, and somehow began to revolve and somehow continue to revolve without a continuously active cause. Planets move and revolve with great certainty and regularity; they revolve not because of any unknowable cause; they hold to their course, not because of the so-called law of gravitation, not because of the ideas of centrifugal and centripetal forces, but solely for the reason that they obey the now unknown, one universal law of life and of death, and that law has its footing in the straight-line and circular movement of atomic activity—of activity in character centers. The minds which first designed the cross-in-circle symbol understood the causes of planetary motion, as also the active causes in life, mind and thought.

The phaenomena of gravitation, of centrifugal and centripetal forces, are all evidences of the universal inter-activity of the radiating and the circling movements in atomic character-centers.

THE ORIGIN AND DEVELOPMENT OF PLANETARY SYSTEMS.

Solar and planetary systems begin as very minute things in amorphous nebulae. Planteary systems come and go; they torm, dissolve and re-form, by passing through an unending cyclic course of metamorphic counter-procedures, as does everything else in the world-process. Some systems become larger and larger in their metamorphosis, and some smaller and smaller. They are formed of the sewerage of universal life.

Suns and planets have a simultaneous origin in amorphous nebulae; they originate as bi-products to the most primitive forms of life, as the offal of life, which collects about the positive and negative poles of digest-centers. Originally both suns and planets are mere foci of distribution and solidification, the suns being the electro magnetic (or rather, the diapheromenal sympheromenal—the Yang Yin) foci of distribution, and the planets the magneto-electric (or better, the sympheromenal diapheromenal—the Yin Yang) foci of collection and solidification of sewerage-substance. Both these foci expend their predominant energy; the solar foci disappear by dissipation; the planetary foci metamorphose into solar foci by spontaneous combustion, and they again distribute their substance to other planetary foci.

The whole process of sun and planet-making is one of continuous rotation in collection and distribution of substance and matter.

Amorphous nebulae are a rather ideal extreme of distributed substance.The so-called amorphous nebulae are all granular; that

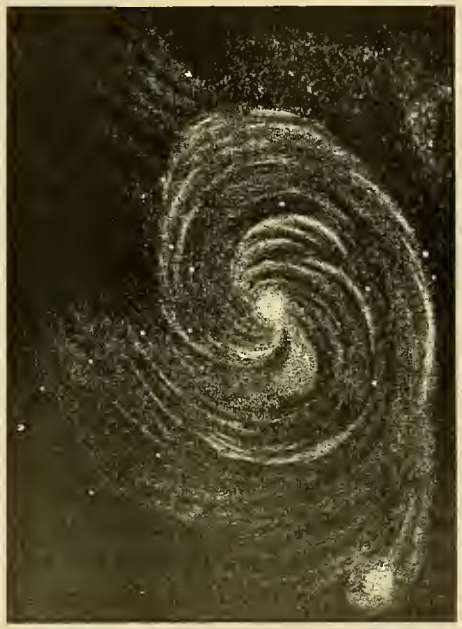
is, minute centers of collection and distribution exist in them, and as these centers assume more and more the character of solar-planetary systems, so do the nebulae become more and more granulated. The granular, natural nature of nebulae is solely the result of life's activity.

The world-process is a unit in its principles of procedure; its principles are the same in its smallest as in its most enormous phases.

Both suns and planets have originally very short periods of metamorphic existence; the suns or distributing centers, in the beginning of planetary systems, burn out their little substance quickly, and the planets as quickly change into suns, giving up their substance to the formation of new planets; always in the byways of life, always by the sides of protoplastic conditions of matter.

The granular character of nebulae undergoes visible changes, by growth of solar-planetary systems, but these systems are al-

ILLUSTRATION NO. 44



THE DEVELOPMENT OF PLANETARY SYSTEMS.

The nebulae in Virgo seem to show the retrogressive development of a solar-planetary system, the dcline of a once great system into a smaller and smaller one.

The photograph plainly shows the bi-polarity of the system. The solar, distributing (diapheromenal) center appears within a spiral; the planetary, collective, magnetic (sympheromenal) center is seen in the lower right hand corner.

The periphora appears as a spiral, and its return movement from the planetary to the solar center is plainly visible.

There are other nebulae, which show the development of planetary systems at various stages of growth and decay.

ways sewerage-systems to the way of life. (See illustration of nebulae in Virgo).

The full explanation of the development of solar and planetary systems can only be given after the explanation of the origin of life.

This planet, like all other planets, may be called a magneto-electric center. It grows larger and larger, as do other planets, for two reasons; first, it collects the dead material of life; second, it expands its body by absorption of solar substance, passing through it as electromagnetic currents. The partial absorption of these currents—the binding in of electromagnetic substance—increases the internal volume as it increases its temperature; and the planetary atmosphere also increases by the elimination of magneto-electric substance from the body of the planet in the process of disinfection. The changes which the solar substance undergoes in passing into the body of the planet as electromagnetic currents, and passing out of it as magneto-electric currents, are of two kinds; they produce subservient fire-making tendencies and active water-making capacities, up to a certain stage of planetary development, when the subservient tendencies to fire-making bcome dominant capacities, and the planet becomes a sun. This stage sets in only on the downward course of solar fire, that is, when the solar, distributing energy no longer furnishes enough electromagnetic currents to continue the disinfection-process in the planet.

In the first half of planetary metamorphosis the water-producing tendencies in the planet predominate, but as the planet grows larger and larger, the imprisoned glow-centers or electrons within its substance gain in force; they smoulder, producing the phaenomena of warmth and heat, constantly gaining in firemaking power and making toward spontaneous combustion, as does the great accumulation of almost all substance. Thus the planets gradually gain in fire-making power, and eventually they become converted into suns. They begin to dissipate their substance, and new planet-making begins; that is, satellites become planets.

Antiquity has explained this process of generating fire and water very much more minutely than is done here. Of course it has not explained it by electromagnetic phaenomena; it did not know these phaenomena and did not have words to describe them. But it had words which served the purpose very much better; it had words which included the phaenomena of life and mind, during the entire cyclic course of developing and enveloping solar and planetary energies. It made the origin and development of life follow the development of suns and of planets; it depicted the entire world-process as a whole. Before we can do this, we will have to resurrect the old-time words, and explain the idea which

they at one time represented. Few of these words and none of their original definitions and explanations can be found in the dictionaries. This fact represents a philological difficulty, which the mind must overcome if it wants to get a clear insight into the whole subject.

In the appendix I give a few Greek specimens of rather late old-time ideas, only to show that within historic times these ideas have become considerably confused and the knowledge of the world-process rather dim. The clearly formulated teachings of the Fu-hsi school had become lost to the world long before Greek and Roman civilization had made their appearance.

PHEROMENA—THE IMPERCEPTIBLE UNDERCURRENTS OF NATURE'S ACTIVITY.

The outwardness of nature's activity we know as phaenomenal aspects or changes, and of these our age knows more than probably any age ever did; but there is an inwardness to nature's workings which is now less known than it ever was. To know this inwardness is of the utmost importance to civilization; in fact, it is the indispensable foundation to a full and fair understanding of Fact; without it no reliable judgment of Right and Wrong, of Good and Evil, can be formed in civilized life. It gives all learning a secure footing, and greatly minimizes the work of acquiring knowledge of minor facts and of evolving free-agency powers.

Ninety per cent of all that which the world considers knowledge is purely visionary, and will be done away with if the undercurrents of nature, and through them the world-process, become widely known. Therefore too much cannot be said on the subject.

All of nature's activity aligns itself to the cyclic counter-procedures in the eternal chain of natural causation. No one act of nature can be properly considered as standing apart from any and all other acts of nature. This connection of acts of nature must be established in human knowledge. In order to accomplish this effectually, it is necessary to make three distinctions in considering facts, corresponding to the tripartite powers of mind, which deal with facts in three different ways. We must distinguish between the facts which arise in the consciousness of feeling, the facts which arise in special sensation, and the facts which arise in self-consciousness.

The facts which arise in special sensation we know as phaenomena. Our knowledge of nature which comes by special sensation is only a knowledge of aspects of Fact—of so-called phaenomena—and it does not necessarily lead to the obtaining of a knowledge of facts as they are in themselves, in their connection with the eternal chain of natural causation. Phaenomena-know-

ledge is a product of the interaction between special character centers in perceptive faculties and the character-centers, active in the surrounding world; and this interaction is made possible by the all-penetrating currents in the diapheromenal sympheromenal field, as explained above. The diapheromenal sympheromenal currents act upon the senses much in the same way in which the currents of light and heat, magnetism, electricity, etc., etc., act upon the human body or on the photographer's plate or on the electric apparatus, etc., etc. They connect more or less distant character-centers in an imperceptible way—the way of the world-wide under-currents, of pheromenal counter-procedures.

What man knows of phaenomena, by virtue of his special powers of perception, animal life also knows in similar ways, more or less effectually, but the human mind has double powers; first, it can connect its sense-perceptions in natural ways, as does the animal, with its determining power of life; and secondly, it can also connect them with the intellectual superstructure of lip-consciousness, that is, with word-vested ideas. If it does the latter, it usually works its sense-perceptions into 'ologies and 'isms — into knowledge of classified ideas.

If the human mind proceeds to digest its special perceptions in natural ways, it connects them with common sense, and common sense with self-conscious reason and determining power.

These senses make known the outwardness of the world; common sense throws light on the undercurrents in the inwardness, and self-conscious reason makes known the active character-power in the inwardness, which unites and unifies the light of common sense with the experiences of special sense, and establishes the connection between phaenomenal aspects of Fact and the eternal chain of natural causation.

Sky, trees, animals, houses, etc., etc., appear to us through the senses as phaenomena. When we use the senses in natural ways, these things awaken in us the consciousness that they originated in the pursuit of some purpose, and the first impression which their appearance makes upon us is a more or less undefined change in double-active feelings, such as attraction or repulsion, joy or sorrow, hope or fear, etc., etc. These undefined feelings we refer naturally to our self-conscious determining power of mind, with the view of acting accordingly, in our effort to adapt ourselves to our environment.

When we think in natural ways, following the natural use of our senses, then we arrive at a knowledge of the undercurrents of existence and of the character-power in these undercurrents.

All phaenomena have an active or passive character-power, and by virtue of our trend of mind we naturally study this character-power. The dog we meet on the road may be vicious or he

may be gentle. We naturally think of these possibilities, and thereby we instinctively study character and the counter-activity in double-active feelings, which is a matter of undercurrents.

But when we do not put our senses or thoughts to natural use, when we think in the customary ways of superficial learning about phaenomena, then we form all sorts of well-defined word-vested ideas, which are more or less removed from the inwardness of nature and from the naturally double-active intelligence. The well-defined ideas may nevertheless be true in a way; they may be of some interest and even of importance to us. But when we continue to think about these ideas, and work them over and over without referring them to our living consciousness of Fact, from which they emanated, they may become more and more clearly defined in general and particular ways; they may seem more true—learnedly true—but in reality they assume only a nominal and deuteronominal character; that is, they are only relatively true, in an abstract way. The apparent truth of one idea is determined by its relative connection with another idea, and not by its natural connection with Fact and with the chain of natural causation.

In order to make ideas about phaenomena true to Fact, they must be put in their natural connection with undercurrents and character-power in natural causation; that is, phaenomena must be connected with **pheromena**, special sense with common sense, etc., before their value as true representations of Fact can be fairly estimated by the self-conscious determining power of the mind.

In order to know undercurrents, we must digest special-sense perceptions, first in a common-sense way and then in the way of native reason, as above explained. When we so digest them, we find that all acts of nature are products of double-active, individual character-power, connected by universal undercurrents with all the world, and these undercurrents, in all cases, are only of two kinds, solar and planetary. But both these kinds are double-active, and both proceed by straight-line and circling movements, in opposite direction to each other. The solar kind moves toward the planets; the planetary kind moves toward the sun. In their movements they interact and counteract; they become unified and focalized by individual character-powers in the universal fermentation and digestion-process.

There is no solar substance anywhere in existence which does not interact with planetary matter. When we separate the imponderable solar substance from the ponderable planetary matter, we analyse the fact in our single-active way of thinking and speaking. The fact remains that all things in existence are active compounds of solar and planetary interaction.

The most distant stars contribute their mite to other solar systems besides their own, by virtue of the undercurrents. The undercurrents consist always of two counterforces, the one making for radiation, the other for solidification—the one attractive, the other repulsive—and these counterforces find constant adjustment in individual character-powers in the fermentation and digestion-process.

The undercurrents, coming from the sun and proceeding to the planets, change their character, step by step, because of interaction with planetary matter, moving in the opposite dirction, and its changeful influence. Antiquity classified these steps, first as solar fire, then ether, then **prester,** then planetary atmosphere, water and solid planetary matter. The undercurrents move back and forth, from the extreme of solidification to the extreme of rarefaction, and in this movement back and forth they pass somewhere through a state of approximate balance, where the to-order-setting character-powers in their lifeless fermentation-process enter the procedures of life, and the ferment-centers become digest-centers. The undercurrents connect all forms of existence in the universe; they penetrate all aggregations of matter on the body of the earth and about it; they form the universal features in the chain of natural causation, of which the changeful character-powers are the individual links.

When the new study of the theory of catalysis will ripen into knowledge of Fact, it will be little else but an exposition of the diaphernomenal sympheromenal undercurrents, which radiate to and from and about character-centers throughout all the world.

The undercurrents are the universal fermentation and digestion-process. They furnish the mobility and motivity to all acts of nature, life, mind and character, or the changeful, world-wide, individual atomic power, which acts as the to-order-setting power throughout the world.

All forms of existence are destructible. Character and diapheromenal sympheromenal undercurrents alone are indestructible. There are no material elements in nature; all aggregations of matter can be dissolved into imponderable substance, and are so dissolved by solar fire. Fire on earth is a very different thing from solar fire, which has far more intense character-power active in it. Earthy fire, with its lesser character-power, cannot dissolve all earthy aggregations of matter, but solar fire does eventually dissolve them when planets become suns. Planetary matter is only a knitting together of the stuff of existence by circling and radiating counter-procedures—procedures working in opposite directions throughout all existing stuff. When planetary matter and planetary systems are dissolved in solar fire, they are reduced to imponderable substance, but when they become so reduced there

remain in them still the universal counterforces to radiate and circle about their character-centers. The character-centers remain ferment-centers, and as such they proceed toward the generation of digest-centers and the creation of new life. The diapheromenal sympheromenal undercurrents are as indestructible as is the character-power in them.

THE INDESTRUCTIBILITY OF LIFE

How indestructible are the elementary tendencies, capacities and characteristics of life is easily shown; and the fact that the work of life must again begin in primarily protoplastic substance, because of the indestructibility of those tendencies and capacities, should be evident.

When we boil or roast a dead chicken, and eat the result, we bring its substance to life in our own economy, by virtue of the digestive germs in our stomach. The chicken was dead, but the tendencies and capacities to life were indestructible in its substance. Even if we burned the chicken to ashes, these ashes would still retain the tendencies to life, and when taken into the stomach could be in part assimilated with living substance. Even if we reduced these ashes to most elementary form and converted their tendencies into electromagnetic phaenomena, they would still retain their capacity of affecting life as electric currents passing through the body.

The elementary tendencies to life, then, are as indestructible as are the elementary tendencies to dissipation and concentration of matter.

The tendencies to life include the tendencies to consciousness, to mental and intellectual activity, and by organization of cell-life these elementary tendencies can and do evolve the doing, knowing and thinking powers in organic life.

THE PREVAILING IDEAS OF LIFE AND DEATH ARE INDISTINCT AND EXTRAVAGANT.

The categorical ideas of life and death are delusive and contradictory; they must be done away with.

Categorically speaking, life is not death and death not life, yet, in fact, the tendencies and capacities of life and the tendencies and capacities of death are inseparably united in both substance and matter. That substance which is dead makes for revival and life. That which is alive makes for death. We die every hour of our lives, that is, some of the cell-life in our tissue dies and other cell-

life takes its place, until finally the entire organic tissue dies. But what dies? Only the determining consciousness, and with it the power which sustains the organic form.

The character-powers of the specific digest-centers die, and the specific form of life loses its sustenance. The dying of the digest-centers is a metamorphosis from highly organic powers into elementary ferment-powers, vested in more elementary atomic character-centers.

There are degrees of death which categorical thought fails to notice. Death is just one class-notion to categorizing thought, which ignores the steps of life's evolutions and involutions, yet in the nature of things, death is a cyclic movement, just as is life; it proceeds gradually, step by step, from life to some extreme of death, and from that extreme back to life.

The roast chicken which we may eat is not nearly so dead as a piece of iron.

By holding to the categorical ideas of life and death, the mind is made to conceive the workings of life and death in faulty and even contradictory ways.

An eternal curse attaches itself to the categorical misuse of words; it deludes the intellect and it destroys the civilization which the deluded intellect attempts to control.

The categorical corruption of the word "pyr" (fire) furnishes a good specimen of the categorical deception of the intellect; it deceived the thinking minds two thousand years ago to a deplorable extent. The various schools of thought, during the great mental activity of that age, connected all sorts of absurd ideas with it. The Stoics, for instance, imagined that all life came from the fire of the sun; and the burning out of this fire—the **ekpyrosis**—which to them meant "world-process", also meant the total destruction of all life.

Some of the Christian thinkers, who understood the undercurrents of existence, but did not comprehend the workings of the world-process very well, knew the stoical ideas to be false, but they went to the other extreme in trying to tell the truth; they perverted and misapplied the Herakleitean fire-idea. Laboring under the misconception of disinfection and restoration of life's offal by fire, they used the torch for the purpose of destruction to hasten the supposed renovation.

They invented the idea of immortal souls, of **"anastasis"** and of hell-fire for purification purposes, etc., and the world has ever since been crazy about soul-ideas and hell-fire, and it has engaged in devilish practices of fire and sword, of burning witches, etc., etc.

Everybody in Christian and heathen lands has his own ideas about the soul, but nobody knows what power gives character to either animal or human life.

Nobody understands the organic workings of conscious determining power in all life; nor the difference between animal and human consciousness; nor the influence which language exerts upon the human knowing powers, and yet the subject is all-important; it is nothing but language which has evolved the intellect and brought about the difference between animal and human life.

Nobody ever realized that all the diverging and conflicting opinions regarding souls, Gods and Satan, right and wrong, good and evil, etc., originated in unnatural ignorance. Nobody realized that all this conflicting word-knowledge was only a product of the perverted and self-sufficient thinking faculties, which had separated themselves from the living consciousness and natural knowing powers of mind, and which had abandoned the care of feelings. As a consequence of not realizing this fact, the self-sufficient ego, with its word-knowledge, imposed untold sufferings during long ages upon humanity, and caused all sorts of unspeakable atrocities to be perpetrated under the claim of right and the sanction of good intentions. Delusive, categorical soul and God-ideas have always destroyed the virtues of the living God-consciousness and placed civilization under the control of the daemonized intellect.

Most people imagine, even in these days of great enlightenment, that their souls will march on forever, when, as a matter of fact, these presumably immortal souls are never more than half alive, even in the best days of their mental evolution.

Herakleitos, who knew the so-called soul only as a thing of substantial existence and as a character-giving power, understood its indestructibility. He understood the ever recurring cycles of generation and regeneration, which perpetuate life in changeful forms, even beyond the dissolution of sun and of earth. But he also knew that the continued fitness of survival depended on the fulness of character-power, and that few, indeed, could claim such power in the fulness of its natural and normal development. He knew that those who could not justly make such claim fell with the offal by the way of life; they went into the sewerage of life to be disinfected and eventually burned up. But the way in which he understood and knew all this was not known to the mass of the people and not even to many leading minds. It is one thing to know fact dimly, and quite another thing to know it thoroughly. Out of the dim conceptions and misconceptions of the Heraklei-tean fire or glow-center ideas, seemingly originated the ideas of

Christian Purgatory and Hell; the ideas of redemption by disinfection, dissipation and eventual burning up of the irredeemable offal.

When we come to comprehend the workings of life and of death clearly, we may be astonished to find how close to the truth came the conceptions of Purgatory and Hell; and yet how far away from it.

He who wants to understand the elementary workings of nature's activity, must first lay aside all acquired knowledge of opinion, theories and hypotheses regarding natural causation. For the time being, he must not think in categorical terms, such as are the words matter, mind, time, space, life or death, Gods, Devils, souls, ghosts, foot-pounds, molecules, centrifugal or centripetal force, chemical elements, metals or metalloids; nor in any words denoting mathematical ideas, etc. All these words and ideas have their proper use, but they cannot serve to elucidate the imperceptible causes, active in the world-process.

Word-vested thought is only a mental tool-chest, but it pretends to be a determining power of life. It could be such a power only if the intellectualized mind had fully evolved free-agency powers.

The human mind has powers to use thought and language in five very different ways, for the purpose of judging the various facts of existence. All these ways produce different kinds of

ILLUSTRATION No. 45

AN ANCIENT CHINESE MEDAL, DEPICTING THE FIVE INTELLECTUAL TOOLS, WHICH THE NATURAL USE OF LANGUAGE PRODUCES IN ITS CONNECTION WITH THE THINKING CONSCIOUSNESS.

The five animals are glyphic representations of the lateral procedures which thought pursues in intellectually evolving the logic of life; that is, in making intellectuality an organic working-order, corresponding to the principles of life in organic existence. These five different procedures are represented by five different animals, having different legs or ways of moving, the centipede presumably with a hundred legs, the spider with six, the tiger with four, the three-legged toad and the legless serpent. These same animals are slightly varied in Chinese iconography, and they are more varied still in the iconography of other races, but they enter into the sacred myth of all races in some way or other, to depict the intellectual tool-development. They frequently appear on ancient Chinese medals, with various inscriptions, referring to the proper or improper use of intellectual tools.

The inscription on the left-hand face of the medal is in character-signs, which suggest to the Chinese mind that riches, honour, prosperity and happiness will come to those who properly develop their intellectual tools and make reasonable use of them.

ideas, which serve the mind in different ways as intellectual tools; but only one of them can serve to elucidate the undercurrents of existence which produce cosmic phaenomena, and only one other can lead to a comprehensive knowledge of the world-process.

The five ways of living consciousness, which represent and characterize the powers of life, have evolved five ways of the thinking and speaking faculties, and the capacity of the thinking ego to produce intellectual pictures true to nature's activity. **This evolution of the intellectual tools is explained in the Pentateuch,** but the explanation is given in a type of language which cannot be transposed into our own type in the way in which translators have undertaken to do it.

If we could avail ourselves of the formulas regarding right-thinking and right-speaking contained in all sacred writings, we would have no difficulty in explaining elements of nature's activity; in fact, no explanation would be required; everybody would know them. Since no one knows these formulas and we have no time here to study them, we must get along as best we can by such means as are at our command. We must take occasional glimpses into the workings of our nature, and through inner individual observation, judge universal activity. We must study the double activity of nature, our own consciously living tendencies, capacities and character, to know and properly judge this double activity in all things.

Our thinking powers have been evolved out of our living powers, and they must hold their rooting consciously to the living powers, in order to be able to represent the elementary undercurrents of nature's activity, fully and fairly.

Abstract thought, which ignores the undercurrents of mind, the living consciousness, can never get at the elements in nature's activity; it can only represent phaenomena in fragmentary detail; it cannot represent the connection of all phaenomena with the one chain of natural causation.

The representation of nature's phaenomenal work only concerns the surface aspects of Fact. The imperceptible undercurrents of existence must find representation by thought, in order to eventually enable the mind to form a full and fair picture of the entire world-process.

We must make known to ourselves the elementary workings of nature before we can hope to comprehend her complicated workings. Science errs because it confines its observations to phaenomena only.

The human knowing powers are not confined to the thinking powers; the elementary knowing powers of the mind connect themselves directly with the doing powers in the process of na-

ture. The thinking powers play no part in the elementary world-process; they come into play only when animal life becomes sufficiently organic to evolve nerve tissue and brain-cells, and they come to play a predominant part only after language has evolved extraordinary thinking faculties. But these extraordinary thinking powers are not often representative of all the doing powers in nature, nor of the elementary knowing powers of the human mind, and they are often wayward, flighty and visionary, and untrue to the principles which govern the procedures of life and death in nature. The talking world has too much faith in its thinking faculties, and too little in its living consciousness.

He who would know the world-process must first of all realize that word-knowledge cannot embody facts of existence, but can at best furnish only hints to living consciousness. He must further bring himself to realize that categorical terms, positively and negatively defined, are not the proper means whereby to hint at living consciousness and to depict Fact as it is in itself. Therefore he must, for the time being, lay aside all hypotheses, theories and so-called laws of nature, or other products of guesswork, which the categorizing mind has produced in its efforts to explain facts unknown to it—unknown to unnatural ignorance.

He must lay aside the idea that planets are pieces torn from the body of the sun and flung into space, to circulate for no knowable reason about the sun, and to be held in their circulating course by centrifugal and centripetal force.

Neither the earth nor any other planet ever was a piece of fiery matter. We can dig into its crust anywhere and find nothing but the remnants of water-formation, such as flat layers of sedimentary deposits, solidified under pressure, and crystallized by diapheromenal (electric) currents into various kinds of rock. We find these layers tilted at the edges of mountains, but we find that the substance within the mountain is the same as that in the lower strata of the earth, and that **the mountain has been lifted out of the earth by some power underneath,** and if we exercise our reasoning powers in natural ways, we will find also that the valleys between mountains are produced, not by caving in of the crust of the earth, but by remaining approximately on their original water-level. (See illustration to stratification.)

We find evidences of life in water, such as shells, on the top of mountains, because the mountains have been lifted out of a watery level.

The attempt to explain the presence of sea-life, near high mountain tops, by a mythical flood is puerile.

There never was more water on the surface of the earth than there is now, although the earth, when very small, consisted of nothing but liquid substance.

The body of the earth and that of every other planet is growing larger, not smaller.

All planets originate, as a collection of liquid substance, from offal of primitive, aerobious types of existence; and this liquid gradually makes solid deposits, and the mass of the deposit gradually increases, as life continues in its course of evolution.

The origin of all planets is in gaseous and liquid states of aggregation, in so-called nebulae, and the dissolution of planetary substance results from spontaneous combustion.

There is as yet but very little evidence of spontaneous combustion on this planet . A few volcanoes show evidence of it, but even these volcanoes become extinct as soon as the affected substance beneath them is exhausted.

The percentage of volcanic formation about the earth is very small, as compared with that of water-formation.

To talk of the earth as an extinct crater is talking without knowledge of Fact, and in the face of overwhelming evidence to the contrary.

Illustration No. 46

A MISCROSCOPIC VIEW OF A PIECE OF CHALK, SHOWING ITS ORIGIN FROM ANIMAL LIFE. SIMILAR EVIDENCES OF LIFE IN ROCKS ARE NOTABLE IN ALL BUT THE ARCHAEAN STRATUM OF ROCKS, AND IN THAT STRATUM THE SLOW PROCESS OF PLANETARY FERMENTATION AND RE-FORMATION HAS WIPED OUT THE EVIDENCES OF LIFE IN WHICH THE OLDEST ROCKS ORIGINATED, AS WELL AS ALL LATER ROCK-FORMATIONS.

Everybody knows that the later stratifications of the earth are composed of the offal of life, as shown in the microscopic view of a piece of chalk, but nobody suspects that the older, underlying strata also have their origin in life's offal. These earlier rocks show no evidence of life. There is, however, no other possibility in the nature of things, for rocks to form within the body of the earth save from offal of life; the entire body of the earth originated in offal of life.

The prevailing ideas as to the origin of the earth arise in unnatural ignorance of Fact, and so also do the prevailing ideas regarding the origin of life. All these ideas must be laid aside. So also must the ideas of universal gravitation.

Gravitation is a terrestrial phaenomenon, which cannot be expected to occur also about the body of the sun, nor even with equal effect about all planets. The sun is a repulsive (diapheromenal) center; its repulsive power we may suspect from the position of comets' tails, if we do not know it for other reasons.

The planets are all centers of attraction (of sympheromenal activity) which manifests itself as magnetism and as gravitation, as weight of matter, etc. The collective capacities of substance (its sympheromenal activity) produce the solid states of aggregation and the phaenomena of weight and gravitation, which manifest themselves in the environment of the collected mass and about its so-called magnetic center.

But this planetary capacity to collect substance, this magnetism which gives weight to matter, depends much on the stage of planetary development and on the degree of predominance of sympheromenal capacities over diapheromenal tendencies.

The magnetic power is not the same all over the surface of the earth; it differs according to locality. The difference may be small, but it is there, and it has been known to exist. It has been scientifically established.

All planets are of different ages, and all are passing through different stages of development. Their magnetic power depends on the age and state of development.

It is true that all are growing larger, as does the earth, but the power to collect substance dissipated by the sun varies in every planet, and so does the degree of sympheromenal preponderance over diapheromenal tendencies vary. In the planet Jupiter, for instance, the diapheromenal tendencies are even now beginning to overbalance the sympheromenal tendencies, as is evidenced by its polar activity. The planet Saturn, although much larger than the earth, has yet very much less power of attraction in its environment. To apply the same so-called law of gravitation to sun and planets alike is therefore error. The planets do not all move in the same density of substance. Planetary space is filled with denser substance at the outskirts of the solar system than in the closer environment of the sun, where the diapheromenal or repulsive activity is greater. In fact, the law of gravitation is not a universal law; it does not apply to solar activity at all, and only with different degrees of correctness to different planets.

The planets in their courses form magnetic bands about the sun, and the magnetic power in these bands differs, according to the age of the planet and its distance from the sun.

It may be truly said that figures do not lie, but it is also true that some liars can figure, and ignorance of facts can misapply the use of figures.

The mathematical astronomers have misapplied the use of algebraic formulas. It is with them as with the algebraically educated lady whose housemaid suggested the need of a patent stove which would use but half the amount of fuel. Said the lady:

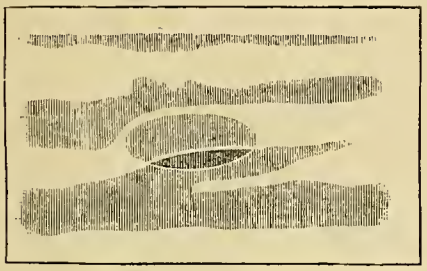


Illustration No. 47

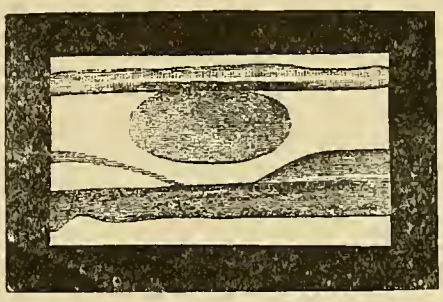


Illustration No. 48

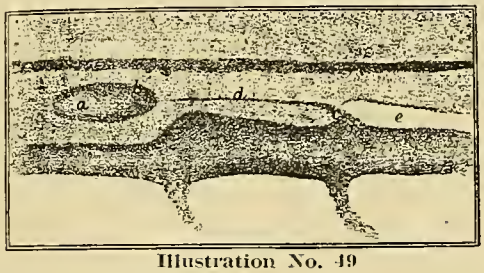


Illustration No. 49

THREE VIEWS OF JUPITER, SHOWING THE PLANET IN ADVANCED STAGES OF DEVELOPMENT, FROM A COLLECTIVE CENTER TOWARD A DISTRIBUTIVE CENTER—TOWARD SPONTANEOUS COMBUSTION— TOWARD ASSUMING A SOLAR CHARACTER.

The three cuts show the great polar activity of Jupiter, and evidence of a first step of its coming spontaneous combustion and eventual conversion into a sun.

Astronomers have noted that Jupiter emits light of its own. Of course, all planets do this, to some extent, but notably only when their inner temperature increases with age, and the time for conversion into solar activity approaches.

The polar emissions of Jupiter are of a fiery nature, especially those seen at its so-called south pole.

The body of Jupiter also shows a rapidly changing surface, which seems to be the effect of volcanic activity, preceding its going into spontaneous combustion.

The wet and cold character-centers in the slow planetary fermentation, which change the knittings in the solid rocky matter of planets, do not always continue their course of solidification. They tie up a certain amount of solar light-heat substance, and gradually the fire-making tendencies of this substance become actual capacities. The temperature in the body of the planet increases; volcanic outbursts become more frequent, and spontaneous combustion sets in gradually. The planet begins gradually to assume a solar character. This change the Greeks knew by the name of HYPOSTREPHOSIS.

"I will go at once and buy two stoves, and then we will need no fuel at all!"

Nature is not a mathematician, and the solar system does not work in accordance with mathematics. It works in the one immutable law of setting to order the changeable predominance and subservience of nature's elementary counterforces.

The planets float in prester and not in resistless space. The character of prester varies with its distance from the sun, and as it varies so varies the resisting power to planetary revolution about the sun. It is not a unit throughout planetary space, as assumed by our mathematical astronomers.

MODERN DELUSIONS

Modern science has never taken the counter-active forces in nature into consideration. It has always ignored the subservient tendencies, and dealt with the predominant capacities only. It has always misrepresented the double-activity of nature by single-active thought, and it does so still, although it does begin to talk about "light-pressure", as counter-active to gravitation, and it feels inclined to admit that the many metals and metalloids are not elements in nature's activity, but that electrons and their restraining power are such elements. And because science has looked and still looks in one-sided ways on nature's activity, it has never taken a sensible or reasonable view of sidereal and geological phaenomena.

To imagine that the earth is a fire-ball with a thin crust over it, is simply silly. Fire cannot exist without rapidly decomposing and radiating matter. The fire-process is a rapid ferment-process.

The interior of the earth is warm, and getting hotter and hotter as its mass accumulates, certainly, but it is not an actual fire. It has only subservient tendencies, which make for capacities to produce actual fire, eventually.

To imagine that the earth is getting too cold for habitation is as absurd as the idea that the world will come to an end when the sun has burnt out its substance. This is a large world, and it does not depend on the life of this planet, nor do the metamorphic changes in planetary development entail the destruction of life.

There was life before this earth existed, and there will be life when this earth is no more, in fact, this earth owes its existence to the prior existence of life. Its body, from the very center to its atmosphere, is made up of the offal of life (phtharton;) it is a mass of collected and solidified sewerage (phtheiromenon).

The oil, coal and limestone deposits are not the only evidences

that the earth is made up of the offal of life. All other earthy substance and rock is offal of life in different stages of solidification and transformation—constant transformation, caused by diapheromenal (electric) currents passing through the body of the earth, from pole to pole. There is but a small percentage of matter in the body of the earth or in that of any other planet which comes directly from the sun, or which is the mechanical precipitate of solar substance. And it is because the earth is made up of the remnants of life that its substance can re-enter vegetable and animal life.

All these facts were well known to antiquity—to the Fu-hsi school in pre-Confucian days, thousands of years ago.

The assumption of many thinkers that life and its characteristic consciousness is something which exists only where human sense can find it about this planet, is evidence of the deplorable short-sightedness of the intellectualized mind. It is evidence of the fact that the exercise of single-active thought and its categorical language develops one-sided and artificial knowing powers, at the expense of the double-activity of life and its natural intelligence.

The average reader imagines that only since the days of Galileo has the world known that the earth revolves about the sun, and that no one knew the earth to be round before the days of Columbus. These imaginings are almost true, as far as historic times are concerned, but they are very far from true as far as the higher antiquity is concerned. Even within historic times there were thinkers who knew that the earth was round and moved with its moon about the sun, as did the other planets. Aristarchus of Samos knew this fact, and sustained it by argument against the mathematical astronomers of Alexandria, who argued that if the earth did so move with the other planets, then there must be some apparent change in the position of the fixed stars, when seen at the different seasons of the year. To this argument Aristarchus is said to have answered "The distance of the fixed stars from the earth is so great that the perspective diminution is not noticeable."

Schiaparelli has, within recent years, convinced the foremost thinkers of Europe that Heraklides of Pontos knew that the then known planets revolved about the sun; but he did not know or did not care to assert that the earth and moon also moved about the sun. Presumably Heraklides derived his knowledge from the older Babylonians. He may have worked it out by the use of the armillary, as did the Chinese, or he may have derived it from his study of Herakleitos' works. If he really had this knowledge, he was one of the few who escaped the corruptive influence which his teachers exerted upon natural intelligence.

Heraklides had a poetic mind, and prosy sophistry did not appeal to him.

Schiaparelli is probably correct in his judgment of old-time knowledge; he usually knows what he is talking about. Antiquity knew many facts for which modern thought does not give it credit, and some of which modern thought has not discovered. Our modern thinkers often fail in extending their polymathic wisdom into the comprehensive knowledge of antiquity; they cannot give antiquity credit for its best intellectual development, because they cannot bring themselves up to it; they cannot go beyond their own limited ken; they believe that the world is certainly gathering wisdom by increasing categorical word-Knowledge.

To imagine that life and consciousness have mysteriously originated on this planet is evidence of the fact that the intellectualized mind cannot take hold of the latent tendencies which act in connection with patent capacities. The scientific mind can see the outer working powers, but it cannot see their inner imperishable resources; for instance, it can see the electron, but it cannot form a clear conception of the restraining power in electric currents which cuts these currents into infinitesimal fragments. It cannot understand the working of magnetic circles in electric currents. It cannot comprehend that electricity is inseparably connected with magnetism. It calls the origin of electricity unknowable because it does not know it, and it does not know it because it fails to deal with the latent, non-apparent, underlying tendencies. And for this same reason it fails to conceive the fact that **life and its consciousness are universal characteristics of substance**, no matter where and in what state of aggregation or dissipation it appears.

If life and its consciousness were not universal characteristics of all existing substance, the eye could not see into distance. We could not see the sun, the distant stars, the Milky Way, or nebulae, if the substance in the light-waves coming from there did not carry with it subservient tendencies of life and of consciousness. We could not know what is going on in distance — we could not think into distance.

The active mind can know what is going on in distance, because in its undercurrents are, active and passive, the same tendencies and capacities of doing and knowing which pervade the universe.

The eye sees by absorbing the substance of light-waves, and this absorption is a vital process — it is an assimilation and elimination; it introduces something into the living and knowing powers of the animal economy, a something which has tendencies and capacities for life, and because it has these it can bring about a change in the living and knowing powers. (See microscopic illustration of the eye of an insect. No. 25.)

Or again: If the tendencies and capacities of life were not characteristic of all substance, the water we drink and the air we breathe could not become part of our living economy; iron, mercury or other metals, which we take in medicinal preparations, could not enter our digestion-process, they could not affect our lives or those of the microbes within us.

All these assertions, here dogmatically made, will appear as self-evident facts to the normally constituted mind, when we come to look, through the Fu-hsi school, at the origin of life and of the planetary system.

The word "mind" needs some definition, for science tells us that it is connected with creative powers, and that we are incapable of conceiving what it is and whence it comes. This is unnatural ignorance with a vengeance. It is assertive ignorance, which fundamentally denies the possibility of free-agency powers in man, and his intellectual ability to rule civilization in the way of right and reason.

Mind is a compound of natural and acquired knowing and doing powers. It is made up of tendencies and capacities, inherent in all substance, evolved in the organic way of living into various characters of determining power, and of special aptitudes and faculties to know environing conditions and to adapt itself to them. All these connect themselves with additional thinking faculties, out of elementary knowing powers evolved in the higher stages of animal life. And in human life these thinking faculties have been evolved into intellectual, superstructural powers, out of the underlying animal powers and faculties, by ways and means of language.

The evolution of mental and intellectual powers out of elementary tendencies and capacities is not by any means necessarily a matter of mystery. Nature is not a mystery-worker; the fact that the causes, ways and means of evolution are unknown is rather a matter of unnatural ignorance, due to retrogressive steps in the cyclic course of intellectual development and envelopment, for the causes of evolution have been thoroughly known in former ages.

Surely the steps of evolution are the work of conscious determination by a creative genius; but that creative genius is the one character-evolving power in all substance; it exists everywhere, although it is only active here or there, now or then. It is active wherever the work of evolution is going on. It is not the genius of any distant, absentee God.

Creative work cannot be done at a distance without immediate connection of ways and means. The creative powers exist in all substance, actively or passively, predominantly or subserviently, but they rise in predominant activity, becoming active, conscious, deliberate determinations wherever creative work is done, wherever evolutionary steps are taken. The creative genius is more or less active or dormant in all life, and it comes actually to the fore in human life when truly evolutionary steps are taken in the way of intellectual and social development.

The genius of creation can even be aroused in plant life by stimulation, and made creative of new species to fit improved, environing conditions. The appearance of every new species is an evidence of creative activity. It is not a mere mechanical production and reproduction of species.

The workings of creative activity are not unknowable. Mind is not a mysterious thing; it works through knowable organs, nerve and muscular organs, brain-cells, etc. The workings of mind are unknown only because modern learning has not yet made an analysis of the various faculties and functions in the human body.

In order to explain the workings of mind in its connection with creative procedures in the process of nature, I will sum up what I have said in previous pages, in connection with other subjects.

In the previous chapters we have dealt only to a limited extent with the elements of nature's activity. We have dealt with them in looking upon nature as a universal fermentation-process, and in taking a dynamic aspect of Fact. In so doing, we have had no special occasion to take the creative powers into consideration, yet these powers need the fullest consideration when the mind attempts to evolve a knowledge of the world-process as it is in itself. The sibylline school has given it this consideration, but it has done it by personifying the active character-powers making toward and away from the order of life, or proceeding in life's cyclic way of development and evolution. Our terminological language does not permit us to personify active character-powers. The prosopopeia-system of rhetoric is dead to our civilization. We must deal with the active character-powers by means of terms, such as we have heretofore used; for instance, to-order-setting powers, character-centers, glow-centers, atomic radio-activity, ferment or digest-centers, etc. By the use of these terms, however, we will never get a very clear idea of what mind actually is and does in its diversified branch-development. We can only point to its origin in that consciousness which accompanies the powers of life, and we can only speak of it as tendencies and capacities at this or that stage of development and evolution.

The tendencies to consciousness are world-wide characteristics in all imponderable substance and in all ponderable matter. They are dormant powers, subservient to the elementary counteractive forces in the sewerage-workings of nature. All the stuff of existence in suns, planets and planetary space has dormant tendencies of consciousness within it, and these tendencies are gradually awakened in the advancing sewerage-work about planets, in that work of universal fermentation which prepares protoplastic atmosphere for the generation of life. The tendencies of consciousness

become actual capacities when the ferment-centers, active in protoplastic planetary atmosphere, metabole into digest-centers of life. The consciousness of the digest-center is the first step in the evolution of mind; from that step mental development begins to divide itself into the inner and outer faculties of mind. This division has its root in the duality of individual consciousness (Shu and Tefnuit).

All individual cell-life is nourished in two alternating ways, through its atomic biaxiality. The inner faculties of life and mind are nourished mainly by the digestion of rarefied, imponderable under-currents of substance. The outer faculties are nourished mainly by digestion of ponderable planetary matter. Every individual cell or unit of life, we may say, has a double soul or digestive character-power; it is nourished alternatingly through the axis of the nucleolus and that of the centrosome, and this nourishment gives it two powers of mind—a special character-power, which controls its inner workings and a sense-power, which facilitates its adaptation to environment. Therefore, figuratively speaking, we may say that everything has two souls—a dry soul and a wet soul, as the Herakleiteans said. The dry soul, by imponderable substance nourished, makes for the evolution of seed-energy; the wet soul, by ponderable matter nourished, makes for the evolution of organic tissues, and this evolution carries with it all special development and envelopment. It proceeds alternatingly; now the outer faculties of sense and now the inner faculties of special reasoning character predominating, but between these two powers there enters the one self-conscious, to-order-setting power, the power which, in the prosopopeia-system, is depicted as that of the Creative Genius, and this power does not act merely in the way of special sense or of special character, but it acts constantly as a unifier of all contrary activity in special faculties of life and mind; it acts as a governing power, as the Herakleiteans put it. Its evolution in the process of nature keeps pace with the evolution of special faculties of sense and reason, and in the process of thinking and speaking it strains to keep pace with the growth of civilization. It strains to evolve free-agency powers; it strains to make man a self-conscious part of the creative procedures in the world-process, so that civilization may be made an organic and advantageous superstructure to the lower order of life in nature. In the Chinese Tai-kih (No. 9) the two souls, so to speak, of the same digest-center are known as two polliwogs. Each has an individual axis of digestion, of development and of evolution, but these two axes cross each other in the nexus—in the crossing-point—the seat of the Genius of Creation. The procedures of this Genius are shown in the winding Tao line, which divides the two polliwogs and depicts the

principles of counter-procedures and self-division of the to-order-setting character-power in the ups and downs of development and evolution, now making for evolution of seed-energy and now for that of organic powers.

The whole process of evolution of life and mind is comprehensively depicted in the ideograms to the Chinese Book of Changes—the Yh-king—and it is also depicted in detail, not only in Chinese seal or character-signs, but in the sacred iconography of all the great cults which emanated from sibylline sources. There is no difficulty in knowing what the mind is and does; there is no mystery about the workings of the Creative Genius in the world-process. The workings of thought make it appear mysterious. All facts regarding the world-process arise in living consciousness; lift the verbal veil of the thinking consciousness from the consciousness and self-consciousness which accompany the powers of life and characterize the mental powers in man, and all mysteries disappear.

All individual life is a double process. It is a mental distillation process in its relation to the "above" atmosphere—the field of conscious energy which permeates the world-wide "not-self"; and it is a physical digestion-process in its relation to the "below," the earthy matter on which it draws for nourishment. The two processes of breathing and eating become unified in the bodily economy of every life, in the up and down workings of inhalations and exhalations, or of ingestions and egestions.

All digestive work is a biaxial movement; (biaxiality*) it is a counter-movement of polar changes (emantiotrope*) about the axis of the mind-making nuceolus and that of the body-building centrasome.

Inner radio-active energy may be called a first cause in the work of world-building but it never produces anything by itself, it acts only in connection with outer conditions and in its relationship to the not-self — it acts only through its "periechon" or adaptation-power.

Changes in inner radio-activity are integral causes, and changes in outer adaptation-powers are differential causes. Integral and differential causes act only as initiative and referendum to the order-determining power in the chain of natural causation.

*See glossary at end of volumn.

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PART II

THE WORLD PROCESS

——OR——

THE ORIGIN AND EVOLUTION OF LIFE, MIND, THOUGHT AND LANGUAGE

——OUT OF——

THE ONE ELEMENT OF EXISTENCE

BY

ST. GEORGE

friend
Walter, Mrs. M

ST. GEORGE PUBLISHING COMPANY
MALTERMORO
FRESNO, CALIFORNIA

COMMENTS OF THE PRESS

ON

ERRORS OF THOUGHT

By St. George

"MIRROR," ST. LOUIS, MISSOURI

Errors of Thought

Justice cannot be done here or in any review to the enlightened and logical ideas of "St. George," set forth in the large pamphlet called "Introduction to Errors of Thought," and published by the Paul Elder Company, San Francisco. "St. George" has chosen his non de plume fittingly; for the task which he assumes is on a par with the destroying of dragons. He has taken the sword in opposition to the tyranny of opinions in modern civilization. Modern life attains its degrees of progress on the ruins of dead opinions. * * *

The present pamphlet is profusely annotated and illustrated by symbolical designs from ancient sources. It is intended merely as the fore-runner of a more complete work which is to follow. By all means, let us have as much as possible of the literature which "ignores the strait-jacket of orthodox formalities" and goes back to the beginnings of things for truer and more practical methods of thought.

THE CHICAGO EVENING POST

In the view of the author of this remarkable piece of work the ways of thought induced and fostered by alphabetic modes of communicating ideas is responsible for an intellectual fall of man into folly and divorcement from the truth. The author seeks to correct this fatal deviation by interpreting the "living truth" revealed in prehistoric and pre-alphabetical symbolism. There is a lavish display of erudition in his pages. His illustrations alone will constitute a valuable source book for the symbolist.

TRENTON, N. J., "TIMES"

Errors of Thought in Science, Religion and Social Life

Points out dangers of modern civilization, and traces wrong thinking on important questions from the pre-alphabetic ages to the present time. The author holds that hollow talk in school and church, in college, university and public life, is the danger of the hour, converting the virtues of natural intelligence into sham-intellectuality and substituting the emptiness of opinions for the normal powers of knowledge. He deplores the separation of the thinking consciousness from the living consciousness, which makes the faculties of thought self-sufficient and produces much hollow word knowledge, all of which misleads the judging and reasoning powers of the mind. The wrong tendency is very prevalent in schools, he says, while in churches it substitutes contradictory ideas of God and Satan for the living consciousness of God in the human mind, which is the elementary consciousness of the organizing powers of life, mind and thought, active in the process of existence, having virtues as a humanizing power which the conflicting ideas about God and the current theories of heaven and hell, now circulating as theologically established truths, do not usually sustain.

From this viewpoint he turns the searchlight upon established systems and economic problems. He says: "The reform-crazed American voter now calls for more special legislation, which does not increase his chances of peace and plenty, but which deprives him of his civic rights and liberties, and places more and more power into the hands of politicians and public servants, and more burdens on his own life." He says that there is too much desire for interference of federal authorities in local affairs. He recommends the establishment of a better financial system in the United States that would make this country independent of foreign capitalists and claims that too much advice about the tariff and other national questions comes from foreign interests.

This is a book written in a scholarly but very independent style, and calculated to stimulate any one's thinking powers.

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The author states his purpose to be solely the correction of the ruling opinions that have a direct bearing on the fate of modern civilization and produce conditions of well-being and suffering in social life. It is a work on the practical application of thought and language as life-controlling powers in civilization. The arguments advanced show the author's intent to get at the pre-alphabetical way of thinking, which, "because of the natural simplicity and adherence to the powers of life, can readily lay a foundation for superstructural ideality."

Interesting to scholars and those who like profound reading.

SAN FRANCISCO "CHRONICLE"

The errors specially dealt with are those fostered in educational institutions and finding their way into legislation. Tariff reform, trusts, and taxation are considered from an entirely original standpoint. To the present agitation against the trusts the writer is vehemently opposed. He says: "The nations which labor to legislate trusts out of existence may be moving toward industrial suicide; they will probably not be able to compete with those nations which foster the trust system." But it would take a page to indicate the various matters upon which the author passes equally emphatic judgments. The excellently reproduced illustrations from Egyptian and classical history and mythology are a feature of the work.

FROM CINCINNATI, OHIO, "TIMES-STAR"

A California philosopher, who comparatively digests the sum of the ethical philosophies of all times and applies his conclusions to modern life. In "Errors of Thought," he launches into a discussion of present-day evils which all learned pragmatists will condemn but which offers an abundant field for conjecture as to whether he is or is not right. And the world lacks a just judge so to pass on his conclusions. It is a work of the highest creative philosophy.

ST. LOUIS "TIMES"

Certainly here is a worthy field indicated, and we gather from the pages in hand that the author is peculiarly qualified to perform his work thoroughly.

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By
M. P. MALTER

DEC 26 1914

THE WORLD PROCESS FROM THE VIEW POINT OF THE SIBYLLINE SCHOOL WHICH KNEW BUT ONE ORIGINAL CAUSE OF CREATION IN THE WORLD OF ENDLESS DIVERSITY AND CHANGEFULNESS.

ILLUSTRATION 51

SIBYL, A PERSONIFICATION OF THE HUMAN KNOWING POWERS, REGARDING THE PROCEDURES OF THE ONE CONSCIOUS TO-ORDER-SETTING CHACACTER-POWER WITHIN THE TWO INSEPARABLE HALVES OF NATURE'S ELEMENTARY COUNTER-FORCES.

This cut represents the head of a Sibyl, in my opinion. Whether or not the statuettes from which it was copied, had originally been intended to personify the Sibyl-conception, is immaterial to our subject. The head bears all the marks distinctive of the Sibylline School.

The veil over the back of the head symbolizes the certain thought-woven tissue by which antiquity, and particularly the Fu-Shi School, had represented the changefulness of causes in the work of evolution, or so-called creation.

The hair, (symbolic of natural lines of thought) wound into pointed form over the forehead, denotes the **concentration** of the thinking powers in the **Determining Point**, or focus of atomic radio-activity in the universal fermentation and digestive process.

The knowledge of the Determining Point makes knowable the Gist of all Facts. All the multiplicity of changeful phaenomena and of ideas fall into the Oneness of Fact, in which they originated, when the attention of thought is directed to it.

The side-curls depict the lateral workings **of Spoken and Speaking Thought** in the way of Reason and of Sense, as the laterals to intellectual determinations.

The Sibylline School knows only one element of existence and it included the one to-order-setting power in its conception of this element. Out of this **Oneness** it evolved all knowledge of existing things by elucidating the chain of natural causation along the counter-procedures of evolution and involution. If this be monism, it is of an entirely different kind from that of any modern monoistic conceptions.

The Sibylline School offers the only possible solution of the so-called world-problem.

If we want to get a clear idea of the one solution of all problems of life, mind and thought, we must get entirely out of our present workshop of thought; we must get consciously and self-consciously into the world-wide work-shop of nature. We must do this by abandoning statical ideas, ideas of so-called dynamies, ideas of special arts and sciences, in fact all abstract ideas. We must do this by directing the attention of thought by language to the double-active character power in all atomic radio-activity. We must learn to speak to the Point. We must work toward that definition of words which concerns nature's double-active doing-powers, and not states of being. And we must do this work in a more thorough-going way than we have begun it in the previous pages.

In order to do this work thoroughly we must get the eye to assist our ear-born word-vested knowing-powers. We must learn to read symbolic hints, ideograms and living pictures of fact; in short we must learn to direct out thought in naturally conscious and self-conscious ways beyond the realm of our word-vested ideas to that which takes place within the work-shop of nature.

Before we can successfully pursue this natural way of thinking we must learn to thoroughly distinguish the various causes active in our present ways of knowing, thinking, guessing theorizing and believiong.

If we thoroughly attend to these preliminaries we will come to know with utmost certainty all that which modern thought calls unknowable.

The reading of the original meanings of ancient pictograms is pioneer-work and therefore apparently difficult; yet it opens the easiest way to certain Fact-Knowledge. It lifts the verbal veil which obscures the inner workings of consciousness, and it makes known the inner workings of the causes of evolution.

KNOWING, THINKING, THEORIZING, GUESSING AND BELIEVING

Before venturing on the sibylline eludicdation of the World-process, an elucidation which includes the creative genius active within it, it may be well to consider the human powers of knowing, thinking and believing to some further extent than has been done heretofore, and it may also be well to have a look at the work done by advanced thinkers, who, in recent times, have attempted to elucidate the World-process.

The question of knowing connects itself with all statements of Fact regarding the World-process, and must be touched upon by at least a few more remarks than those heretofore made.

In daily life, as in science and theology, we sometimes speak of facts which we do know in natural ways, but more often we speak of that which we only think we know, and we speak of it as if it were a truthful representation of Fact. There is quite a difference between that which we do know in natural ways and that which we only think we know; and this difference is not understood by the people in general or even by modern learning. That which we naturally do know comes through **three channels of living consciousness** and through five auxiliary, now unknown natural channels of that thinking consciousness, which is evolved in natural logical ways. The logic of nature is unknown at present. That which is known as logis consists of various procedures of thought, none of which have anything to do with the chain of causation in the world-process, nor even with the connection of cause and consequence, which makes or mars civilized life. That which people generally think they know to be truthful representation of Fact consists largely of faulty deductions and inductions, made from sensible observations, and these deductions are usually formed in the ways of categorizing thought, by means of terminological language. All that science and theology know of natural causation comes in this latter way. All is a product of irrational guesswork, and an atempt to elucidate those unknown facts which civilization must know in order to make social organization a success.

The three natural channels or sources are: first, the elementary consciousness of nature's motivity, usually called **common sense**; second, the special faculties of the **five senses**; and third, the consciousness of character-power, properly called **native reason**, in distinction to the special reasons into which intellectual development enters.

All branches of modern learning ignore two of these sources, viz: the living, common-sense consciousness and that of the determining character-power in the human mind; all hold only to the consciousness of special sensation or to faulty deductions therefrom, or perhaps also to faulty inductions from other natural but undeveloped modifications of consciousness.

Modern science stands entirely on the basis of special-sense perceptions, and on the deductions or inductions therefrom. Any thinker taking this scientific ground becomes a bogus realist if he attempts to speak of natural causes. Modern science says: The original causes of life and mind, of nature's mobility and motivity, are unknowable. This is not true; the consciousness of original causes is implicitly given in natural intelligence, but it needs development by thought and language to become knowledge, and this development it does not receive at the present day, for modern education withdraws the attention of thought from the living consciousness and character-power, active in the process of nature. Original causes become unknown if the Thinking Ego abandon the consciousness of the Living Self; unknowable they never are. A little dim consciousness of them always exists in natural intelligence, in common sense and in native reason, and at times this little consciousness in daily life closely approaches actual knowledge. To the mind highly intellectualized by deductive, inductive and other non-logical methods of thought, original causes may appear unknowable, but these minds deceive themselves. Were these causes quite unknowable it would be absurd to speak of the origin of suns and planets, of life and mind, or of anything whatsoever.

The character-power in the human mind is a product of original causes, and it stands not only indirectly connected with them, through the long cycles of evolution, but also directly and immediately through the workings of its own living consciousness and self-consciousness.

The consciousness of life connects itself directly with the immediate causes of nature's avtivity; and these causes may be traced back to original causation by the study of character-powers active in high and low cycles of evolution.

The elucidation of the causes of evolution can convert the dim consciousness of natural causation into actual knowledge.

The fact that evolution takes place in the process of nature has been explained by Lamarck, Darwin and many other modern thinkers, but it has been explained only in as far as the senses make evolution known. It has not been explained in its connection with the chain of eternal causation in the world-process; the connection between the faculties of sense and the causes which produce them being still unknown to modern learning, although they were well known to antiquity.

The whole question of knowing thus resolves itself into the possibility of elucidating, not only the "how," but also the "why" of evolution. If all the causes of evolution are knowable, then the original causes of natural causation and the entire world-process become knowable, and only in that case can the mind claim to have a fairly developed natural knowledge of Fact. In all other cases it must forever grope in the dark, guess and theorize about cause and consequence, and it cannot evolve the free-agency power needed to make civilization a success. At the causes of evolution we must look closely, and this modern science has not yet done.

The evolutionists have done good work from the phaenomenal point of view. They have proved to all the world that organic life originates in cell-life. They have described the changes which take place in the outer appearance of cell-life during the course of evolution; but they have never explained the inner causes of evolution. They have never explained the workings of the inner character-growth of life, nor the process of digestion as causes of the natural growth and evolution of life, mind and thought.

They have guessed at the causes of evolution, but they have guessed away from the character-power active in the chain of natural causation, and from the immediate consciousness of life which is inherent in all active causes of evolution. Their guess-work has led them to suggest that adaptation to environment and some alleged ability to profit by experience are possible causes of evolution. They have substituted their ideas of these alleged possibilities for their lack of natural knowledge, and in doing this they have made a theory of the fact of evolution.

As long as the mind does not use its immediate consciousness of natural causation, inherent in its own living character-power, as long as it fails to connect the faculties of special sense with the causes which evolve these faculties out of living and conscious

character-power so long must all so-called scientific knowledge of life remain a mere matter of theory.

The theory implies guesswork and not actual knowledge. All the theories of evolution rest on more or less exact sense-observations, but the natural knowledge which comes by these sense-observations has been given an artificial character by the faulty, one-sided way of thinking which fails to connect the consciousness of the senses with elementary common sense-powers, and with the living character-power in man and nature. When the thinking mind does not connect its work with living consciousness, it can only guess at natural causes and form theories.

Guesswork and theories can never satisfy the human mind, although they may be scientifically based upon sense-observations. The human mind wants to know the root of its knowing and living powers. It wants to know, this root, not in the diverse ways of artificial thinking, but in the natural ways of fact-knowing and of truth-telling, so that it may be enabled to base its judgments of right and wrong fairly and squarely upon the causes which create and sustain life. This demand of the human mind remains unsatisfied at present, but it crops out everywhere in the advanced thoughts of the people and of men of learning. The great mental activity in Germany has in recent years repeatedly endeavored to break through the boundaries set by exact science, and repeated attempts, sensibly based upon scientific observation and experience, have been made to elucidate the world-process. All have utterly failed, because all modern thinkers lack the knowledge of rudimentary principles which govern the natural workings of thought and of language. All may be great in special ways, but not one of them can reason comprehensively. Thus, for instance, Svante Arrhenius, in his recent publication: Das Schicksal der Planeten, sums up all the scientific knowledge of planets very correctly, but having done this, he presents absurd and utterly untrue views with regard to their origin and development.

Thus also Prof. Zehnder, of the Polytechnical School in Berlin, puts all his scientific knowledge of electricity and magnetism and of all other so-called physical forces to an absurd use when he attempts to explain the world-process, as he does in his recent publications: **"Die Mechanik des Weltalls"** and **"Die Entstehung des Lebens."** The professor may be positively great in the line of special-sense knowledge, but his attempts at comprehensive

thinking are only of negative value. So also Dr. Drescher, a physician and a man of great learning, draws a very unsatisfactory picture of the world-process in his book: "**Werden, Sein, Vergehen.**" He evidently has studied the fragments of Herakleitos, but he has failed to comprehend their meaning and misapplied his idea of them. All of Dr. Drescher's scientific statements of Fact are relatively true, as is all the work of science, but all his attempts to deduce the Truth from these relatively true observations are dismal failures.

Equally irrational is the learned Petzoldt in his deductions from scientific knowledge, as rendered in his late publication: "**Das Weltproblem vom Standpunkte des relativistischen Positivums.**"

These and thousands of other recent attempts of great thinkers to traverse the special-sense boundaries of exact science and supply the world with needed knowledge of Fact, are evidences that modern science cannot deal with the inwardness of things; and the reason why it cannot deal with it is to be found in the fact that not having put thought and language to their proper and natural use, it does not observe the first demand of the Great Learning of ancient China: Connect your special-sense knowledge with the living consciousness of common sense and native reason, by tracing back the causes of human evolution to elementary character-power in the process of nature. There is no difficulty in doing this if the mind will follow the old-time precepts to supply itself with the five kinds of intellectual tools, and use these tools in both sensible and reasonable ways.

Sense alone cannot carry human knowledge where it has to go. Reason must be made to perform its proper office in the human mind.

No modern scholar knows the difference between the natural work done by the faculties of sense and that done by native reason.

Reason deals with the logic of life—with man's immediate knowledge of cause and consequence. Special sense, if holding to common sense and native reason, and if exercised in natural ways, does the mind's preparatory work; it does it in dealing with evidences of nature's activity. It furnishes means to the end of reasoning and of living.

The special senses are the natural tools of life. They stand naturally connected with the workings of life's powers; but they are also connected with the workings of the thinking faculties and

powers. This latter connection usually interferes with their natural workings in their former connection. Thought, illogically exercised, as usual in this age of abstract learning, brings the work of the senses into an unnatural and irrational connection with word-knowledge, and thereby it misleads the reasoning powers; it draws them away from their natural connection with the living powers, into the entanglements of word-knowledge and into the labyrinth of categories.

All the great scientific thinkers, who attempt to give vital value to their relatively true ideas, get entangled in categories of time and space, of matter and force, etc., and of special terms, chemical, physical, psychological or other. No such special terminology is needed to know the World-process. There are only two elementary counter-active forces and powers active in it, and in these forces is contained the one to-order-setting power, now active, now passive, which does the organizing work, productive of life, in the process of nature. These two elementary forces manifest themselves in the activity of suns, which distribute the substance of light and heat, and in the activity of planets, which condense the solar substance and convert it into ponderable matter. All that the senses can tell us by observation of phaenomenal modifications emanates from these two elementary forces and from the to-order-setting power within them, and all the many ideas of natural forces, known to science, can easily be retraced to their origin if the five intellectual tools are properly developed in the thinking mind, and put to sensible and reasonable use.

There is nothing in human life, nor in any other life, which is not a product of the solar light-heat substance and its interaction and counteraction with earthy matter. Ferment and digest-centers do the creative work on earth as throughout the universe, and they do it, not only in elementary ways, but also up and down the ladder of evolution, from the lowest form of life to the human intellect. (See Illustr. of Universal Kitchen of Assyria.)

All phaenomena of life and of death could easily be explained by explaining the universal fermentation process and digestion process and the changeful character-powers active in them, were it not for the fact that we have too much special learning and too many special terms to confuse us; that we have too many encrusted prejudices to overcome, and not minds to deal with which are equipped with the five kinds of intellectual tools, needed to substitute knowledge of Fact for guesswork, hypotheses and theories.

To pursue the question of knowing or guessing very far is not the purpose of these pages. But since the evolution of man's natural knowing powers falls in line with the World-process, which in fact is a process of continuous evolution and involution, of development and envelopment, of powers of life and forces of death, it may be well to point out the difference between the natural evolution of the human knowing powers and the unnatural development of the intellect. This unnatural development has been the curse of all historic ages; it has been the dominant feature in the intellectual life of nations and brought them to ruin. Our educational system is still leading the mind into the old-time pitfalls of erring thought, and since it still causes the Thinking Ego

ILLUSTRATION 52

THE UNIVERSAL KITCHEN OF ASSYRIA SUPPORTS THE TO-ORDER-SETTING POWER IN THE PROCESS OF EXISTENCE BY PREPARING FOOD FOR THE BODY, MIND AND THOUGHT, IN ACCORDANCE WITH PRINCIPLES OF LIFE AND DEATH.

The ideogram consists of a cross in a circle and four pictures in the four compartments.

Cross in circle, throughout antiquity symbolized the ancient conception of Radioactivity in ferment and digest-centers, which at all times moves in both straight lines and circles from and to the CROSSING-POINT in ingestion and egestion.

The digestive, to-order-setting character-power presumably exists in the CROSSING POINT or nexus of the four arms in the cross.

Four kinds of work are done in this kitchen, in accordance with the four-fold principles of creative procedures. Two of these kinds are done on RECIPROCAL PRINCIPLES OF LIFE; the other two kinds follow the RELATIVELY WORKING PRINCIPLES OF DEATH.

The former kinds of work build up the immortal reasoning and determining powers which, according to antiquity, characterize the world-wide field of imperceptible under-currents and of conscious energy. This field presumably penetrates all unconscious matter, and makes the universe not only one process of life and of death, but also one of advancing evolution from the lowest stage of physical life to the highest of mental and intellectual activity.

The other two kinds of work done in this kitchen are of the mortal kind; they nourish the death-going body and its senses; they nourish them in opposite ways.

The four pictures in this cross are so conceived as to form one Tetramorph: and it represents the FOUR PROTOZOAN TYPES OF CHARACTER-POWER, recognized in

to substitute guesswork, hypotheses and theories, of unnatural ignorance born, for natural knowledge of Fact, it may be well to pursue the subject of knowing and thinking a little further. The correct analysis of mental workings, as made in antiquity, distinguishes three kinds of consciousness in the human mind, which thought must develop in five different ways, in order to develop a true intellectual picture of the process of living and dying. The logic of life and death in the process of nature is determined by the procedures of changeful character-powers. To the principles in these procedures the Thinking Ego must adhere, when it comes to officiate os a character-power in civilization, in order to proceed logically in preparing intellectual pictures of Fact.

That which modern learning calls logic is an abominable artifice; it is a systematic but unprincipled method of preparing general and particular ideas, which are in no way like anything that takes place in the process of nature. Deduction and induction

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antiquity. These four types have their origin in the digest-center and its four-fold principles of procedure. Since these same principles extend themselves from the first and lowest, the physical phase of the world process, through the second, the mental phase, into the third, the intellectual phase, the Tetramorph conception of the above ideogram represents the four features of Fact which all Life's activity has in common, be it physical, mental or intellectual activity.

All four pictures apparently deal with the preparation of food, but this preparation of physical nourishment is symbolic of mental nourishment, for the mental digest-center acts like the physical digest-center. As consciousness of Fact is evolved in the process of living, according to principles of life and of death, so conceptions of Truth are evolved in the process of thinking. This process is always one of assimilation and elimination, by the focus of self-consciousness determining character-power—the crossing-point of the two axes in the digest center.

The food for mental digestion is given in modifications of consciousness and judgments or opinions regarding them.

The digestive assimilation and elimination send some digested product along the way of life, and some away from the way of life, into sewerage.

When we weigh opinions regarding requirements of life in the focus of our own self-consciousnuess, we digest their meaning, we accept them in part, and in part reject them; we enter provisions; we take exceptions, and we discard something in our digestion-process of reasoning. It is this process which is here illustrated in detail.

The two figures of the picture in the lower left-hand corner, facing each other, represents the work which the self-conscious mind does by well-balanced initiative and referendum,—i. e, the work of the Immortal Reason of living in nature and of Free-agency in man.

The picture diagonally opposite in the upper right-hand corner represents the work of Special Reason, not under fully evolved Free-agency character-power, but yet the heroic, semi-mortal work, in the mind.

The two other pictures, each having but one figure active in it, represent the work of death-going Sense and of Single-active Thought, the preparatory work, done for higher physical and mental re-digestion. The preparation of food for either life or mind is always of a twofold kind. We might say it is protoplastic and bioplastic. The centrosome does the protoplasstic work and the nucleolus the bioplastic work in cell-life.

are only names for the misapplied methods of three-legged analogy which was glyphically represented by the three-legged toad of ancient China. (See Lllustr. of Chinese Temple Medal No. 45.)

Special-sense observations in our mental economy connect themselves naturally with common sense, native reason and that character-power, out of which the special senses were evolved. In this connection, the senses impart natural knowledge; but the

ILLUSTRATION 53

A TRISKELE, REPRESENTING THE DEDUCTIVE AND INDUCTIVE METHOD OF THINKING AS THREE-LEGGED ANOLOGY, FROM AN ANCIENT IBERNIAN COIN AFTER LUDWIG MILLER.

Sacerdotal Art of Antiquity represented the deductive and inductive method of thinking, now called logic, as a type of three-legged analoogy, and as an acquired artificial, unnatural way of thinking, by an ideogram known as TRISKELE or TRISKELION, meaning originally three pointless arrows of sategorying thought, but latterly the three-egged procedures of analytic thought.

In ages when right thinking, right speaking and right doing were the principle objects of study and when ornaments and idiograms were used as means of popular education, three-legged analogy figured as a by-way to the logic of life—the natural and rational way of thinking, which was pictographically represented by the GAMMADION the socalled FYLFOT, or WALKING CROSS.

Antiquity know other kinds of deductive and inductive analogy, besides those known and taught at present as logic. These other kinds had practical value, but only as preiminary methods of perparing judgments for the final work of easoning, of which the gammadion was the universally recognized symbol. The above Triskele shows a mere intimation of a human face with three legs attached to it, and placed in a moon circle, the symbol of Reflective Thought, which may be, but is not usually the true refrendum to any natural initiative, intuition, purpose, ets., in the way of thinking. Of this initiative the sun was the accepted symbol.

Between solar initiative and lunar reflections presumably enters human self-consciousness as a determining power of light and right.

educational system in our age, as in all historic ages, has never left the faculties of the senses in their natural connection with living reason. It has always connected the work of the senses with general and particular ideas, which misrepresent natural causation and thereby deceive the whole world, scripturally speaking. All our learnedly acquired knowledge of nature stands on the foundation of special-sense observations, which by irrational thought have been connected with categorical generalities and particularities, such as are the prevailing ideas of time and space, matter and force, Gods and devils, etc., etc.

All our scientific theories are products of irrational guesswork; all are products of faulty deductive or inductive jumps at irrational conclusions. None stand connected with the character-power active in the ferment and digest-centers, which determine the changes of life and death throughout the world-process. Science takes note of no character-power in the process of nature.

ILLUSTRATION 54

A GAMMADION, REPRESENTING THE NATURAL AND RATIONAL WAY OF THINKING, WHICH HOLDS TO THE FUNDAMENTAL PRINCIPLES OF FOURFOLD PROCEDURE FROM AND TO INDIVIDUAL CHARACTER. FROM ANCIENT NORTH AFRICA.

The above Gammadion consists of two procedure-signs in form of a cross, vulgarily called sun-snakes, to denote the connection and correspondence between natural and intellectual procedures.

At the crossing point of these procedure signs appear two interlaced links, to denote the inner reciprocal interaction of biaxial double-active character. The whole design refers to the necessary correspondence of radia-activity in naturally vital powers, to that of acquired intellectual powers of the human mind, and to a further correspondence of both powers to the radio-activity in the process of elementary nature.

The profound thinkers of antiquity insisted that the procedures of logical and rational thought must correspond to the principles of life and death in nature, if right-thinking about natural causes and consequences is aimed at. In other words, the logic of life and of death—of going into life and into death—must be made the logic of thought—to insure right-thing and right-doing. In the radioactivity of nature—of fer-

It sees species of organic life and artificially classifies them, but it pays no attention to the character-power which produces the species. All scientific representations of Fact, applied or speculative, are of the classified or categorical kind; all ignore the naturally active causes and character-powers, and all invite the substitution of conceptive aspects and fixed ideas of causes for the ignored natural causes.

The human mind wants to know causes. If the Thinking Ego, by educational methods, withdraws its attention from natural causes, the mind falls to guessing and theorizing.

All the famous thinkers who have grappled with the subject of human knowing and speaking powers within historic ages have made one cardinal error. They have ignored the immediate, living character-consciousness in the thinking mind, and its natural connection with common-sense powers and special-sense faculties, and having ignored this natural connection, all have connected special-sense knowledge and the outer experiences of life with unnaturally classified workings of thought; all have failed to distinguish between the living consciousness, which imparts real, immediate knowledge of Fact, and the perverted thinking con-

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ment and digest-centers—lives the to-order-setting power which thought must make its guiding thread, mythically speaking, in order to evolve free agency powers in the intellectualized mind and this thought can do, if it assume living character-power, vested in verbal forms, i. e. the logos-character. The fourarms in any gammadion represent the four out-going evangelic procedures from the radio-active center.

The four triangular inward pointers in the field of the above gammadion depict the four fields with which every radio-active ferment or digest-center at all times interacts, namely the fields of ponderable matter and of imponderable matter, and the fields of substantial energy and of conscious energy, as antiquity conceived them. These four field exist in the periphora, as I will explain further on.

In as far as gammadion and triskele refer to natural ways of thinking and to acquired artificial lines of thought; in so far do these symbols connect themselves with the symbolic meaning of "Hair," and of "Serpent," as used in the ideograms and mythical stories of ancient sacerdotal art and sacred writings. It is well to remember this, so that the meaning of the mythical stories, which elucidate the process of thinking in connection with the world-process may become intelligible.

sciousness, which vests its conclusions in terminological language, and which can impart only mediate, auxiliary and but too often delusive knowledge. This one error has plunged all historic ages into unnatural ignorance of Fact, and placed human life under the control of intellectual delusions. Since these delusions spring from one error, they can be classified in one category and represented by one name. Bogus realism is the name I have chosen.

BOGUS REALISTS.

Thinkers of all kinds, by whatever class-name they may be called—idealists, materialists, theists, atheists, etc.—imagine that they are dealing with life's realities in truly natural or rational ways, and this error makes bogus realists of them all. The great diversity of opinion as regards that which is true, right and reasonable in the natural logic of life, should be ample evidence to every sensible and reasonable man that all intellectual development is of an irrational and perverted kind.

Those authors of the New Testament who could distinguish between the natural and rational use of thought and language and that which perverted intellectuality makes, were fully cognizant of the error of the ages, but their attempts to rectify this error have fallen flat.

Modern theology, like speculative science, is not a product of logical procedures of thought but of syllogistic procedures; it bases its efforts at truth-telling on categorical ideas, with only this unimportant and delusive difference, that it substitutes God and devil-ideas for the scientific ideas of time and space, force and matter, etc., etc.

In the New Testament, the intuitive consciousness and knowledge of character is depicted as evangelic, and the special-sense knowledge which, by wordy vestment, connects itself with the intuitive character-knowledge, is depicted as apostolic. The fact that all special-sense knowledge must connect itself, not only with intuitive consciousness, but with native reason, and that it must find unification and at-one-making with that characterful doing power in the human mind which is true to the logic of nature, is plainly set out in the Testamentary writ, but not in ways that make it known to Biblical students. These students do exactly what science does; they ignore the character of Fact; but they go on still further with irrational procedures; they misrepresent the characterful representations of Fact in sacred writ, and they

substitute idolized notions of their own manufacture for the real thing—for the to-order-setting power in the process of nature.

The Testamentary doctrine of the logic of life and the elucidation and evolution of rational mentality and intellectuality, is virtually the same as that of the Fu-hsi school, which is many thousand years older. The doctrine of the Christian Logos or Word is in principle identical with that of the original Tao, but the modern theologian knows as little of the Christian Logos as the modern Chinese student does of the original Tao. Both kinds of thinkers substitute their own home-made ideas and notions for the original knowledge.

Bogus realism is evident in all branches of our intellectual activity. All the thoughts which modern thinkers have caused to be printed, for the purpose of elucidating cause and consequence in the logic of life, savor of bogus realism. No modern thinker has been able to show how the senses stand connected with the active character-power in the process of living and dying. All have fallen victims to the delusions of categorical word-knowledge.

Max von der Porten, a German savant, in his paper, "**Entstehung von Empfindung und Bewutsein,**" has recently attempted to correct the common error of bogus realism. He thinks he has placed modern science on its true and rational foundation by elucidating the evolution of consciousness, from the monad (the simple single-cell, endowed with organizing powers) to the human intellect. This work is a first step in the right direction, but it is a first step only. Von der Porten is, like all modern thinkers, a specialist, competent, if not great, in special ways, but not cognizant of those fundamental powers and forces, from which emanate all special ways of living and dying, as well as all special ways of thinking.

Von der Porten's ideas are worthy of the scientific recognition which they are receiving. It is in the line of his thoughts that progress can be made, although his work is fragmentary and faulty. He does not understand the elements of Fact-knowing in their connection with language, and therefore is not conversant with all there is to the art of truth-telling. He does not pay proper attention to the character-power of digest-centers in his monads. He does not make the proper distinction between life and death. He distinguishes living matter from dead matter by asserting that the former, being organic, has ability to bring about material changes, while the latter, being anorganic, has no such ability; thus he passively assumes that chemical distinctions are

final. As a matter of fact, anorganic matter undergoes greater material changes than does organic matter, in the universal process of development and evolution; and it undergoes these changes by virtue of the character-power active in the so-called monad.

The inter-activity and counter-activity of solar substance with earthy matter brings about all the great material changes in the dead world. The elementary, inanimate process, which produces fiery and watery formation of matter, stands immediately connected at all times with the digestion-process of life, and is much like the digestive process in bringing about material changes.

With the means at our command we cannot change one chemical element into another any more than we can change one type of life into another. But nature can do this and does do it, by virtue of the active character-power in her procedures.

Von der Porten, as a whole, goes far ahead of all our famous thinkers, inasmuch as his ideas regarding the evolution of mentality point to the way of obtaining truly natural knowledge. Had he done his work of tracing the mental evolution from the so-called monad to the organism thoroughly and comprehensively, he would have done what he thinks he has done, viz: dealt a death-blow to bogus realism and to all historic writers on logic and rhetoric. He would have made possible the harmonizing of scientific and theological thought; he would have fallen in line with the Great Learning of pre-historic China; he would have produced a truly healthful exposition of Fact—a diatheke—a healthful work on the plan of sacred writings, which connect and unify the diversely thinking consciousness with the living consciousness—man with his creator, as the theologians put it. He would have brought the irrational procedures of thought back to their dependence on the world-pervading logic of life.

The facts underlying all efforts at fact-knowing and truth-telling are simple. The human mind is a tripartite thing: first, the Feeling Self has its natural consciousness and evolution;

Second, the Thinking Ego, has more highly evolved but similar consciousness, passing, however, through dissimilar and often perverted stages of evolution, by reason of the various irrational uses of the powers and faculties of language.

Third the living character has powers to re-adjust the differences between the living and the thinking consciousness, and to

unify them in the free-agency determinations, so as to sustain the causes of human welfare and of social evolution.

The thinking powers and faculties are wayward; they often leave the to-order-setting power, active in the process of nature. In order to avoid this waywardness, they should be held to living consciousness by ways and means of educational training, instead of being led away from it into special channels of knowledge. Both the living consciousness, known as feelings, and the thinking consciousness, usually called knowledge, should by mental training be brought into accord with that character-power in the world-process which is the natural cause of all evolution, physical, mental and social. The unification of the tripartite powers of mind in all their branch-development is the one dogma upon which all great religious cults build their special systems in special ways. (See the Egyptian pict. of the Dogma of Atonement.)

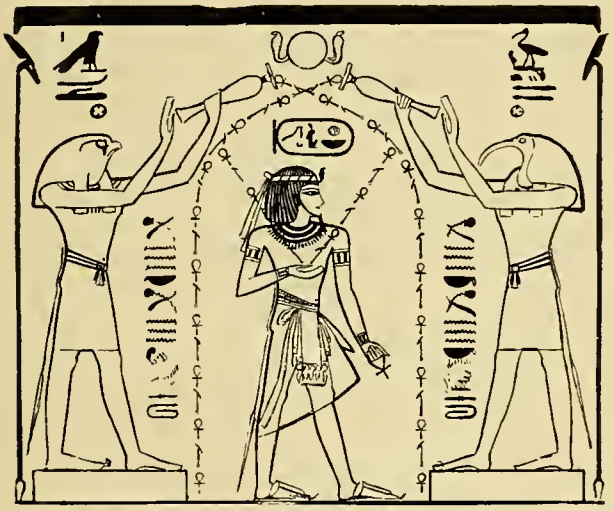

ILLUSTRATION 55.

PURIFYING THE INTELLECTUALIZED CHARACTER OF KING AMENOPTHIS II.

THE DOGMA OF AT-ONE-MAKING IN ANCIENT EGYPT.

The to-order-setting determining power in this ceremonial procedure is represented by the person of a King, ordained to represent the world-wide determining-power of life's order. The picture refers to a certain rather late cycle of a so-called dynasty of Egyptian civilization. However, the lateness of cycle or dynasty does not matter; it is fashioned after the older and oldest; it stands symbolic of that which all truthful conceptions of Fact have in common, and therefore points to right-doing for all time.

The King is qualifying himself for his free-agency work. In his left hand he holds the Ankh, the Key to the undercurrents of existence which admits him to the workshop of nature and enables him to know fact, as it is in itself. To his forehead is fastened the Uraeus to show that abstract intellectual work is not part of his life, but only an acquired attachment, to serve him as a means to the end of knowing.

By his sides stand the heaven-descended Horos and the earth-ascended Thoth; the Genius of Reasonableness, speaking, from the viewpoint of the WORLD WITHIN, about

Thinking away from immediate knowledge of Fact is not promoting healthful mental development; it is not truly intellectualizing the mind; nor is it idealizing reality; but it is rather an idiotic procedure. It leads to the substitution of delusive word-pictures for natural knowledge of Fact. It converts natural intelligence into unnatural ignorance, which but too often is called enlightenment.

The immediate knowledge of Fact, given in living consciousness and in its character-power, is the only material out of which thought and language can ever evolve a truly intellectual superstructure of mind. The mind which ignores the fact that the elements of knowledge arise in living consciousness can never learn to speak rationally of truth, virtue and justice. By the de-

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necessity and the eternal law of life; and the Genius of Sensibleness speaking from the WORLD WITHOUT of expediency and of thought-made laws.

These two Genii fill the intellectual atmosphere or field about the ordained determining power, "the King," with that which the mind has to know of the alternations in the within and without of natural causation. From this atmosphere the King, like any other free agent, gathers in the right hand doing-power what is needed to adjust and adjudicate the diverse and contrary interests and opinions in the world which his determinations control.

The Ankh and the Uas, alternating, form lines in the field about the Royal figure in order to symbolize the alternations in natural causation, and also the two ways in which the Knowledge of the world's workings WITHIN and WITHOUT has been obtained by the Genii of Spoken and Speaking Thought.

The Ankh is the symbol of the evangelic or intuitive way of knowing, thinking and of speaking; while the Uas is that of the apostolic way, it is not unlike the "Shepherd's" Crook, in Christian inconography.

Th old Genius of the Ankh supported the younger Genius of the Uas, at first; but later the latter Genius supported the former, in accordance with the reciprocal principles in the order of life.

In Egypt, as elsewhere in the old world, did the Serpent figure as representative of abstract intellectuality, but yet the URAEUS idea of ancient Egypt differed from the Serpent-ideas of most all other cults of the then civilized world, inasmuch as it was never considered symbolic of that intellectual delusion which "Deceiveth the Whole World." The ancient Egyptians considered the URAEUS as symbollic of an "upright" genius; much as the Chinese consider their Dragon of discernment.

The Uraeus was not unfavorably considered, probably for the reason that very Ancient Egypt, like pre-historic China, imagined that it understood the dependence of Thought on the consciousness of life so well that Thought in the garb of language could never deceive it; that it could never again bring the intellectual development of the entire race under the delusive influence of hollow word-knowledge. If ancient Egypt did not entertain these ideas, ancient China did; the ancient Egyptians fashioned their way of thinking after the ancient Chinese, and they acted as if they could forever withstand the destructive influence of popular delusions; yet they did strenuous work to guard against them. They erected seemingly indestructible symbols to hold the attention of the thinking world forever to the living consciousness of Fact. How could the consciousness of life ever be obscured by delusive abstraction of thought while these indestructible symbols lasted? The symbols still stand, but who knows what they meant to say? The URAEUS still appears as a factor in the old conceptions of the

ductive and inductive methods of thinking, the mind can only draw absurd conclusions from sensible observations, and this is what all speculative scientists are doing, and in fact all modern thinkers. Therefore the misleadership of the people, the irrational system-work, the unrest of the people and the unhappy condition of the lower stratum of society, which affects all higher strata.

In dealing with social problems, such truly thorough scientific thinkers as Prof. Zehnder, above quoted, instill absurd ideas regarding the requirements to social life into the public mind.

Herbert Spencer is a monumental evidence of unnatural ignorance, learnedly acquired, with regard to fundamental principles of fact-knowing and truth-telling, and of the general tendency in

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Egyptian Holy Ghost, yet did the Uraeus prove a ruinous cause of deception to old historic Egypt.

Old Egypt never seems to have realized that evolution can and must move retrogressively as well as progressively. There is no holding to the height of evolution. There is no remaining at any of its stages. Life and intellectuality must go onward or backward. And backward, civilization has gone through all the long historic ages; at least until the eighteenth century.

The serpent-idea, and hence abstract intellectuality, which the idea represented, was held in higher esteem in ancient Egypt than in ancient China, where it only figured as a means to the end of knowing and living.

Ancient Egypt seems to have complacently tolerated the looseness of popular government, as modern America tolerates it in a "laissez faire" way: "Preach and teach, think and propagate all the errors of judgment which please you, convert all the irrational opinions of political, moral, social or other quacks into law, it will not matter; all things will right themselves; our civilization is too great to meet with any sweeping disaster. All the foolish thinking on earth cannot destroy or even lastingly injure it. No one can legislate this great civilization to death. No folly can destroy its prosperity. No scheme can make it pay undue tribute to foreign financial skill. No aggressive diplomacy can ever make this immense commonwealth a mere farm of foreign money-monarchs. Disorders will always right themselves. The righteous spirit of life in the people is stronger than the delusive spirit of erring thought." This is what ancient China did think ere the tartar came; and this is what modern China thought ere European civilization invaded it, and even recently did think ere the Empire fell.

"Trust to your God-ideas that follies will not hurt! Work to destroy welfare in your fellow men and hope to secure the best of life for yourself, even to the day of destruction! Play Hell and hope for heavenly reward! This is the delusion which so-called serpent worship, i. e., the worship of sham-intellectuality, has always inculcated in the civilized mind—at all times—at all places.

As the world thinks, so it acts; as it acts, so it fares. The man, whose mind is working in the way of Fatal Relationship, that is, in the endeavor to overreach his fellowmen, is under the ban of sham intellectuality, and he is but too often a progressive and aggressive reformer, when he is not master of the situation.

The serpent of abstract intellectuality, which ever deceived the thinking world, is still doing wonderfully delusive work in this enlightened age. .Sama-el always plays the same trick, and always makes it win; but only to the end of converting life with high ideals and ambitions into lowly sewerage.

Whenever contradictory opinions come to control the intellectual and social life of a nation, then it divides itself in fatal party strife, and civilization goes to wreck.

the present intellectual development to draw absurd conclusions from sensible observations.

Intellectually overworking and misapplying the functions of special sense is one failing of the times; another is the lack of insight into nature's inner motivity—into "reasons why"—and these failings result in the constant spread of unnatural ignorance in all classes and the common acceptance of the faulty conclusions of thought, as standards of truth, virtue and justice.

The so-called social problem is extremely easy of solution, if the logic of life and its organizing principles are known. It is impossible of solution if they are not known.

All organic development and evolution proceed by reciprocal interaction within, and by relative counteraction without. Only native reason can comprehend the principles of reciprocity; special sense can only know relativity, and that relativity is a fatal thing if it does not connect itself with reciprocity.

Relative truth, such as modern thought spreads and labels "The Truth," is useful only when used in reciprocal and truly vital ways. The senses are the natural tools of the mind, and thought, developing nothing but special-sense consciousness and knowledge, can only produce intellectual tools, but it cannot evolve the self-conscious character-power, so as to make right and reasonable use of either the natural or the intellectual tools of life and mind. Only

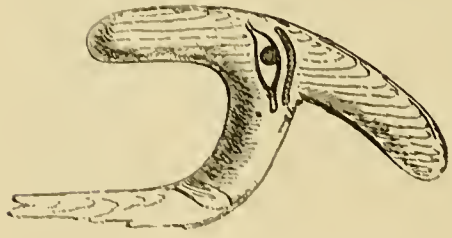

ILLUSTRATION 56.

HEAD OF UAS, OR CONUPHA-SCEPTER.

The Egyptian Uas is the staff or scepter of the outer workings of consciousness, in life, mind and thought. .In the hand of the PATHFINDES IN THE WAY OF REASONABLENESS, the shepherd of the social flock, it serves to guide human conduct along the journey of life, self-consciously and conscientiously, as directed by the one eye which can see the Reason in all things.

The Uas in connection with Ankh, as in the above At-one-making picture, signifies the possibility of harmonizing the WITHIN with the WITHOUT of intellectual work, such as the work of theology with that of science, for instance. .Self-consciousness, of course, has to do this harmonizing.

native reason and its character-power can make proper use of both natural and intellectual tools of the mind.

No mind enlightened in modern ways can properly distinguish the workings of special sense from those of common sense and native reason in the mental economy. Special sense is over-developed. Common sense is stunted, and native reason is not considered in the modern endeavors to promote mental enlightenment.

None of the modern savants, who aim to educate and enlighten the world, understand the function which language plays

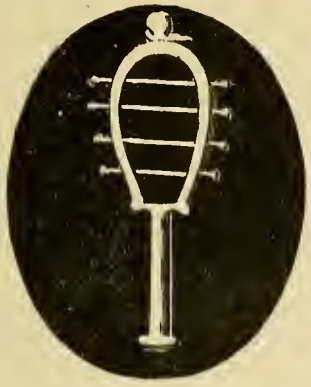

ILLUSTRATION 57.

ANKH OR SISTRUM, ILLUSTRATING THE EGYPTIAN IDEA OF THE "KEY" WHICH ADMITS THE THINKING EGO TO THE "HOLY OF HOLIES" OR INNER CONSCIOUSNESS OF CREATIVE PRINCIPLE AND WHICH HOLDS THOUGHT TO THESE PRINCIPLES.

The Ankh is probably the most important symbol in the cult of old Egypt. It is designed to draw attention to the ELEMENTS OF NATURE'S ACTIVITY, which the mind must know before it can put thought to reasonable use. It symbolizes the elementary consciousness of that which is UNIVERSAL AND INDIVIDUAL in nature's activity and which in the hand or doing-power of the CREATIVE GENIUS OR GENIUS OF EVOLUTION becomes converted into all kinds of special consciousness.

The Egyptian Ankh takes the place of the Christian anchor symbol and St. Peter's keys, being the means to enter the workshop of nature and to hold thought to the causes of evolution.

The Ankh seems to be a combination of the Chinese chou-sign, which consists of thunderbolt and arrow of principles. .All cults have recognized the necessity of holding thought to the consciousness of life and to the active causes of evolution, usually called creative causes; and all have employed symbols for that purpose.

The Ankh consists of four distinct parts:

1st. The horseshoe-bent, which refers to THAT WHICH CARRIES TOGETHER (sympheromenon, in and about ferment and digest centers.

2nd. The cross bars, referring to THAT WHICH CARRIES APART (diapheromenon) and penetrates all things.

3rd. The handle, which signifies that it represents a means of the individual to-order-setting character-power in the hand of man, as in that of the genius of creation, to sustain the order of life and to work in the way of evolution.

4th. The mythical animal perched on the horseshoe-bent represents the fundamental principles of life and of death, as extending themselves into the organic workings of life and into the civilizing purpose.

With the knowledge of these four features of activity, all higher education must begin i n order to evolve reasoning and character-power.

in the conversion of natural intelligence into acquired intellectuality; in fact, they do not even know that intellectuality is developed out of natural intelligence, much less the "how" and "why" of this development. The modern world is misled by education, and made to return to the unreasonable practices of past ages. It is growing richer and stronger by better exercise of sense, but it is not growing more truthful, characterful or reasonable; it is growing in the way of fatal relationship—of ill-will between man and man—and faculty education and irrational enlightenment are the causes of it all. If the World-process were widely known in all its inwardness, the prevailing ideas of truth, virtue and justice would appear rather as delusive shadows than as truthful lights to guide the conduct of man.

The logical or illogical training of the mind has much to do with knowing and guessing.

WHAT IS LOGIC?

The young American, who has studied logic and rhetoric in College, or our home-made intellectuals, who have read Herbert Spencer, imagine that they know all about logic. As a matter of fact, they have not yet learned the first principles concerning it.

ILLUSTRATION 58.

FATAL RELATIONSHIP, AS UNDERSTOOD IN ANCIENT ASSYRIA (after Rawlinson).

Claw-footed, like the bird of prey; lion-headed, like the king of animals in the desert; war to the knife in his civilizing endeavors, stands the man by relative knowledge enlightened, opposed to his fellow men.

The fatal predominance of the work of Special Sense in civilization inevitably results in placing the individual under conditions of fatal relationship.

The "earth-lions," the thinkers in the way of earth-born, death-going sense and thought, confront each other with deadly intent, because they have failed to develop their natural understanding of Fact, and for this reason they are depicted claw-footed. Having failed in development of understanding, they have failed to evolve human free-agency character and reasoning and determining powers, and therefore they are depicted lion-headed.

Th dogma of the relativity of knowledge, upon which the sensible thinkers at all times have built their intellectual systems for the enlightenment and control of civilization, as they do now, makes for fatal relationship and war to the knife, notwithstanding all peace-talk in which it may disguise itself.

Spencer wrote much about fundamental principles, but he did not know anything about them; he only guessed at them and expressed himself in positive ideas with regard to them. His positiveness deludes the superficial student, and causes him to accept the pretentious appearance for the real thing. Spencer's ideas of first principles are as far from the truth as is the Equator from the Poles.

The modern universities pretend to teach logic; they call their conventional methods of thinking "logical," but the so-called logic which they teach is of the syllogistic kind, and syllogizing differs from thinking logically as shadows cast across a field of light differ from the things that cast them.

If the modern university could train the mind to think logically, then it would teach Fact-knowing and not merely theorizing and categorizing, and then there could be no further conflict between science and religion, nor any further conflict regarding matters of fact. The study of logic should bring the thinking and speaking faculties of the mind in line with the study of those double-active, productive and destructive principles which govern all changes in the process of nature, the changes which can be properly called FACT, that is, acts of nature as they are in themselves and as they primarily and intuitively arise in the living consciousness of man.

There are many Facts which do not so arise, and which still concern acts of nature, for instance, those Facts which arise in special sensation and which are really aspects of FACT; and then there are still other facts which are only acts of thought and which do not stand connected in any way with the creative principles, active in the process of nature. It is with these other kinds of facts that syllogizing and categorizing thought concern themselves. The logic which deals with those FACTS which are acts of nature, is as unknown to the modern university as is the logos in the theological seminaries. All kinds of ideas are taught as truths in regard to these twins, logic and logos, but the FACTS concerning them remain unknown.

THE LOGOS.

The logos is that in the way of speaking which logic is in the way of thinking; it is the expression of the to-order-setting power

in the process of nature, and as such an expression, it holds to the principles which govern the procedures of life and of death. In order that the mind may be able to so hold to principles, it must have some consciousness of them. This consciousness is inherent in all life; it is the dim and undefined guiding-thread of natural intelligence, which controls the determining power in the individual animal, and causes the animal to do the right thing at the right time to preserve its own life and that of its species. But man is not a mere animal, he does not act by mere intelligence only. His natural intelligence has been largely converted into word-vested intellectuality. He acts by intellectual deliberation and determination. His natural impulses, appetites, tendencies and capacities have, by use of language, been brought under the control of intellectual powers. Spoken Thought and Speaking Thought are the two elementary characters in these powers. The one speaks primarily from the Living and Feeling Self, the other from the

ILLUSTRATION 59.

THE HOLY GHOST IN ANCIENT AMERICA, AS AN ANALYSIS OF MAN'S MENTAL POWERS.

SPOKEN THOUGHT and SPEAKING THOUGHT, in the above ideogram appear as unified in the intellectualized determining power of man.

Who knows what the Ancient Americans thought about the Holy Ghost, if they had any idea of it at all. Well, they certainly had a very definite idea of it, and a very definite way of expressing it. Their ideas did not differ materially from those of any other race or civilized nations. Their ideagrams tell the same story, but they tell it plainer than do most of the many Holy Ghost ideograms.

THE OLD MAN GENIUS OF SPOKEN THOUGHT speaks intuitively of the principles of life and of death, for these principles arise in his immediate consciousness of life, in his feelings, and to these he gives voice.

THE BOY GENIUS OF SPEAKING THOUGHT speaks by "experience" from without of the principles within. Thus the one speaks as an evangelical character; the other an apostolical character; and since both speak in accordance with the same principles, or identically of them, they are ONE in mind with these principles; they come to an agreement in their opposite way of thinking; their minds meet, and they

Thinking Ego. They are what antiquity knew as the Old-man-genius of Spoken Thought and the Boy-genius of Speaking Thought, and in the workings of the intellectualized mind, these two genii find more or less uncertain unification and at-one-making in the free-agency character of civilized man, whether that character be at a high or low stage of evolution.

Civilized man, in all his work of thinking, speaking and determining, acts as more or less of a free-agent. He has more or less power of mind to adhere to creative principles, active in the process of nature, or to deviate from them. If he uses his faculties

become ONE in course of their endeavor, by virtue of their intellectualized determining power. If their endeavor falls in line with the to-order-setting power in the work of creation, then they form a healthful or sacred Tri-unity.

Spoken Thought connects itself with religious sentiment, intuitions and endeavor, while Speaking Thought connects itself with the scientific bent of mind...If these two sides in the public mind become unified in the way of Knowledge and determination, then civilized life may come under the influence of truly healthful, intellectuality—Holy Ghost intellectuality, according to the above ideogram.

This ideogram says much more than here mentioned: I have said something about this in "Errors of Thought." I will have much more to say of the subject which it represents elsewhere. What I have said here is enough for the present purpose of illustrating the Tri-unity of consciousness in the human mind.

ILLUSTRATION 60.

AN EGYPTIAN CONCEPTION OF THE HOLY GHOST.

In order to show that the idea of Holy Ghost has not always been a matter of superstitious and meaningless fancy I produce an Ancient Egyptian ideogram of it, which says virtually, if not verbally: Whether you think intuitively from your self-consciousness outward, as does father Kneph, or whether you think circumspectively from intellectually prepared ground toward the within, as does Horos Harmarches, always remember that nature is double-active and characterful, and that all products of thought must find at-one-making in active principles of life.

The double crown and the double feather on the two heads, and the connection of these with the Scarab make a tri-unity.

There is a long story to this subject.

The tri-unity of to-order-setting power in the world-process, consisting of Father, or old-man genius, of Son or logos, and of Holy Ghost, or intellectual periechon, was, known to the Egyptian, before it found its way in Christian theology to become unknown. This trinity of mental energy was probably known long before the earliest Egyptians came into existence.

of thought and speech in naturally logical ways, then he follows the principles of the to-order-setting power in the process of nature, and he himself becomes a to-order-setting power in civilization, a truly free agent of the causes to which he owes his existence and well-being. But in order to be able to use his faculties of

ILLUSTRATION 61.

THE LION KILIN, representative of the RELATIVE PRINCIPLES of procedure in special, death-going SENSE by means of which life adapts itself to its environment.

ILLUSTRATION 62.

The MOUNTAIN SHEEP KILIN, representative of the RECIPROCAL PRINCIPLES of procedure in ever-living REASON of Creation or evolution, by which life regenerates and perpetuates itself.

PRINCIPLES OF PROCEDURE, AND THE LAW OF EVIDENCE IN ANCIENT ART AND STORY.

PRINCIPLES OF PROCEDURE IN NATURE AND CIVILIZATION DIVIDE THEMSELVES INTO THOSE OF LIFE SUSTAINING RECIPROCITY AND THOSE OF DEATH-GOING RELATIVITY.

THE REASON OF LIVING PERPETUALS ITSELF IN THE SPECIES AND IN WORLD-WIDE WAYS. THE FACULTIES OF SENSE DIE WITH THE INDIVIDUAL.

THE STUDY OF THE DIFFERENCE BETWEEN RECIPROCITY AND RELATIVITY MUST BEGIN BY DISTINGUISHING THE DIFFERENCE BETWEEN THE PROCEDURES OF SENSE AND THE PROCEDURES OF REASON. THE LAW OF EVIDENCE HAS ITS FOOTING IN THE CONSCIOUSNESS OF THIS DIFFERENCE.

THE UNIFICATION OF THESE TWO DIFFERENT PROCEDURES IN SELF-CONSCOUSNESS EVOLVES THE LIVING CRITERION OF CERTITUDE.

The mind, which wants to profit in both, the sensible and the reasonable ways by its observations and experiences, must bring itself to a point where it can distinguish the two kinds of procedures, their going apart and their coming together in the crossing-point within the to-order-setting character.

The facts concerning the LAW OF EVIDENCE and the possibility of evolving a LIVING CRITERION OF CERTITUDE are never considered by modern learning. These facts must be known before the mind can even begin to rationally evolve Free-agency powers.

Modern scientists have much to say about their systems of observations and experience; but none have ever been able to draw reasonable conclusions, from either observations or experiences by means of their systems All the conclusions so drawn are more or less sensible. None can lay any claim to reasonableness.

REASONABLENESS DOES NOT ENTER INTO THE LOGIC OF SCIENCE, but it is an indispensible factor in social life.

In order to make the law of evidence clear to the thinking mind, the ancient Chinese distinguished the procedures of Reason from the proceedings of Sense by two Kilins, the lion-kilin for the procedures of Sense, and the mountain-sheep-kilin for the procedures of Reason.

thought and language in naturally logical ways, he must understand, comprehend and explicitly know the creative principles in the chain of natural causation. The dim consciousness of these principles in the undercurrents of his natural intelligence does not serve him as it serves the animal. He deos not act as does the animal, in response to natural promptings; he acts as something of a free-agent, since his mind has been brought under the influence of thought and language, and in order to so act successfully, he must convert the dim consciousness of principles, given in natural intelligence, into explicit thought and word-knowledge. If he does not do this well, then his free-agency powers will serve him badly. In order to do this well, he must learn to analyse his own living consciousness, in connection with his own self-conscious determining character; he must learn what he does not now know; he must

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The stories told about these Kilins were intended to elucidate the difference in procedures of Sense from those of Reason to the self-conscious mind; they were told in ways which made these elucidations of practical value in social life. It would be difficult to retell them in a way, which would make them of value to our civilization; especially while the public mind is not open to give the subject any thought, being convinced that it already knows all it needs to know on the subject of evidence.

The Egyptians analyzed the civilizing purpose in accordance with the three strands in the chain of natural causation and the mental powers representative of these strands —the three Mental Kingdoms, Character-height, Depth of Inner Sense or Ever-living Reason, and Extent of Special Sense.

A hundred years of studious effort, at the present rate of intellectual advancement, could hardly bring the public mind to a stage of development, where it could distinguish THE RELATIVE WORKINGS OF SENSE from the RECIPROCAL WORKINGS OF REASON; and it would certainly require a much longer time to harmonize the workings of Sense with those of Reason, in living self-consciousness, so as to make intellectual development a truly healthful factor in civilized life.

The scholars of ancient China said that it took their race 3000 years to evolve the full knowledge of the causes of evolution; and these causes must be known before the Law of Evidence can be understood or a living criterion of certitude can be evolved.

The ancient Egyptians depicted the same procedures of Sense and Reason from the view point of the CIVILIZING PURPOSE.

ILLUSTRATION 63.

ILLUSTRATION 64.

ILLUSTRATION 65.

This purpose they represented by three Bulls, Apis, Pakis and Mnevis to correspond

learn to see how the work of life and of death is carried along through ages.

Character-power does the vital, to-order-setting work throughout the process of nature and human nature, and character-power in the intellectualized mind can do similar work in civilization, but it can do it only if it follows the plan and organizing principles of creation—it can bring civilization back into the way of healthful evolution. But it can do this only if it come to understand, com-

to their ideas of Height, Extent and Depth. They evidently founded their educational system on the ideas that good intentions must be made to furnish the impetus to the right and reasonable use of all means to the end of living. Their endeavor to draw attention to the necessity, that Good Intentions and Good Will must be made to support the civiliving purpose, stand out everywhere in their educational iconography.

The procedures which should be pursued to make Good Intentions fruitful of results aimed at, they depicted in many ways which concerned the LOGIC OF PURPOSE.

Ancient Egypt aimed to educate its people by use of ideograms. The Egyptian iconography is virtually a full illustration of the Great Learning and of the Fu-hsi School in Ancient China The ups and downs, in the way of physical, mental and intellectual evolution, are depicted in procedure-lines from the view point of immediate consciousness of causation.

Pictograms, concerning principles of procedure make up the bulk of educational designs of earlier Egypt.

Egypt, 6000 years ago, knew more than did Egypt 5000 years ago. And Egypt 2000 years ago knew next to nothing of that which old Egypt had known and had labored to bequeath to the world for all time, as knowledge indispensible to making of tho work of civilization an enduring success.

Egypt, long before the days of Moses, had fallen into intellectual degeneracy. The meaning of its iconography had been lost to both the people and their hierarchal leaders, but the healthful effect of the original training of mind survived in the civilizing instinct and made Egyptian civilization one of long endurance, second only to that of China.

The ancient Egyptian seem to have been most thorough scholars of the practical type. The knowledge of creative principles seems to have been the A. B. C. of their learning. With this knowledge all their ideograms stand connected; and in fact these ideograms furnish complete illustrations to the knowledge of the world-process, practically applied to the process of civilization.

It seems strange that this comprehensive knowledge should have been lost to the world, only because alphabetical sense-development took the place of the pictographic development of the Reasoning powers. But evidently the BULLS OF GOOD PURPOSE AND INTENTIONS proceeded the SERPENT OF ABSTRACT INTELLECTUALLY, in making a failure of the work of civilization. The knowledge of the LAW OF EVIDENCE became lost with the meaning of the ideograms which depicted it. The LIVING CRITERION OF CERTITUDE did not survive in the civilized minds of ancient Egypt; it went into oblivion, as it also did in the Hebrew mind, after the reign of the Mythical King Solomon. Yet the causes of its evolution are fully depicted in Egyptian ideograms, and fully elucidated in alphabetical writings, known as biblical stories and other myths

What a lot of trash our learned thinkers tell the world about both these remnants of old time knowledge!

The Egyptians, at one time, evidently had been expert educators of the public mind. They had known how to bring the people in the right way of thinking, speaking and determining. They employed ways and means to make anybody realize the difference between RECIPROCAL PRINCIPLES of social interaction and RELATIVE

prehend and explicitly know the principles of creation by analysis of its own consciousness and the self-conscious will-power. It must learn to bring its own determing-power into harmony with the world-prevading principles of life and death in order to do truly reasonable and healthful work in civilization. Therefore said Herakleitos: "I seek myself" (in the eternal chain of natural causation).

CREATIVE PRINCIPLES.

To arrive at a knowledge of creative principles, then, it is necessary to analyse the workings of the human mind. Before the mind can know what is going on outside of itself, it must know

PRINCIPLES of counteraction. They had been able to make clear the PRINCIPLES OF PROCEDURE which sustained the healthful evolution of civilized life, as well as those which disturbed its order. They had been able to make the Law of Evidence so clear that a child could see why and how social conditions are produced by principles of procedure, purused by the government and by the social factions, working under the government.

It is a question whether the modern mind can be made to realize that all its relatively true ideas must be brought into connection with the REASON IN ALL THINGS i. e. with the reciprocal principles with sustain the order of organic life, and with the relative principles which fit organic life into its environment. And all this early Egypt had once known.

At the present status of the public mind, it would require a volumne of explanation to make clear the fact that ideas of life must be formed in accordance with the principles of procedure, which produce and sustain the order of Life in the process of nature, and that these principles must be studied to become explicitly known, so that ideas can be formed accordingly. Causes must be made known, so that the thinking mind can connect its ideas of conditions, experiences, and observations with them.

Making causes thoroughly known is a matter of intellectual digestion of ideas, concerning conditions, observations and experiences.

The relative ideas, which the modern mind knows, need to be subjected to COMMON SENSE DIGESTION, by connecting them, in the way of thinking, with universal features of causation, i. e., with the reciprocal and relative principles of Life and Death. And the products of COMMON SENSE DIGESTION must be RE-DIGESTED in the Way of NATIVE REASON, by connecting them with the three Individual phases of causation: Height, Extent, and Depth, in order to prepare them for the work of self-conscious determinations in civilized life. These assertions are hints at the now unknown procedures of the LOGIC OF LIFE, OF ORGANIZATION AND OF ADJUDICATION, which the authors of sacred writings aimed to explain.

ILLUSTRATION 66.

AN ASSYRIAN IDEOGRAM OF PRINCIPLES OF PROCEDURE.

Reason and Sense, or Inner Common Sense and Outer Special Sense, are here represented as twins by two ruminating animals with one horn each. The animals proceed alternatinoly, one ahead of the other. Ruminating animals are evidently chosen because the Assyrians knew well that all procedures in the workings of life, mind and thought are digestive, and all evidence is a matter of ruminating or re-digestion. See the Universal Kitcken of Assyria, Illustration 52.

The two heads of one horned cattle, (Ill. 66) moving through or carrying along

what is going on within it. To know, in this case, as in all other cases, means to convert the consciousness of life into the word-vested consciousness of thought. Only the word-vested consciousness of thought is explicit knowledge. All other consciousness is merely a matter of undefined natural intelligence—raw material of knowledge. The word-vested knowledge is true only to the consciousness of life if it is evolved and developed in accordance with creative principles. The mind cannot be a successful organizer of civilization if its thinking and speaking faculties are not evolved in truly organic ways and in accordance with organic principles; for these principles govern the life and death-going procedures at all times.

Most of the sacred writings make the **logos** (oum, honover,

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symbols of organic branch-development, indicate the way in which Sense may serve the Work of Reason, by holding to the civilizing purpose, and through it to fundamental principles of Living and Dying, according to ideas of ancient Assysia.

If the Law of Evidence could be made known to the public mind, it would quickly understand why the LOGIC OF ADJUDICATION should be made the governing principles in the civilized life, and not the Logic of relative truth, which now deludes all Christian civilizations.

All this may appear as far-fetched; but a very little practical illustrations would open anybody's eyes to the ACTIVE CAUSES in the march of our civilization. No one gives any thought to these causes at present. Yet the future of our civilization is determined by the development of these now active, but unobservd, causes. The workings of these causes everybody would understand, if our theologians, philologist and archeologists understood their business well enough to read and render the old-time elucidations of the principles, which govern the mental digestion of evidences, and which made the Law of Evidence the property of the educated mind, so that it cannot be deceived by hallow talk.

ILLUSTRATION 67.

CHINESE IDEOGRAM OF DISCERNMENT OF PRINCIPLES OF PROCEDURE. THE ANCIENT CHINESE KNEW THAT ALL THE WORK OF NATURE WAS DONE BY FERMENT AND DIGEST-CENTERS, UNDER CONTROL OF UNIVERSAL RADIO-ACTIVE CONSCIOUS ENERGY, WHICH THEY CALLED "SHANG-TI," THE UNIVERSAL TO-ORDER-SETTING POWER—GOD, OUR THEOLOGIANS WOULD SAY.

The DRAGON OF DISCERNMENT looks at the Tai-kih, the original digest-center and active cause of evolution, and it instantaneous distinguishes truth-telling from "hallow talk", as the Chinese call all word-spun theories.

Principles of procedure in life or death circle through the cyclic-counterprocedures of opposed forces (Yang-yin). All the work of life is done in digest-centers. All ideas which do not fall in line with these facts are not true to life, from the Chinese point of view, and that view-point is correctly taken.

etc.) that is, the character of organic language, the active cause of using thought logically, of following the principles of creation, first, through analysis of mind, and then throughout the entire chain of causation in the World-process. This view of fact makes logic appear as the younger brother of the **logos**; it makes the thinking faculties depend on the speaking powers. This view of Fact is true, from the point of the Thinking Ego, but from the point of the Living and Feeling Self, the to-order-setting power of language itself depends on the to-order-setting power in the process of nature, for from that point of view language hints only at living consciousness.

PRINCIPLES OF PROCEDURE and the LAW OF EVIDENCE are much easier studied by means of ideograms and mythical stories than by learned essay. Our learned thinkers, and, in fact, all philosophers, have struggled in vain to elucidate the workings of mental and intellectual power. They have never come to a point where they could distinguish mind from thought—the consciousness of life from the consciousness of word-vested ideas.

Nothing whatever is known of the Law of Evidence. Very little, if anything, is known of the influence which mind and thought exert on favorable or unfavorable conditions in social life.

The study of modern psychology deals with absurd ideas vested in high-sounding but hollow talk. The law of evidence being unknown, the mind gets confused in working with its own ideas.

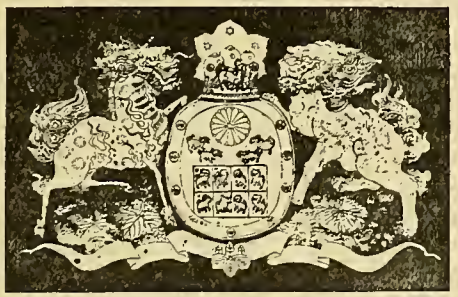

ILLUSTRATION 68.

THE CREST OF ANCIENT JAPAN. THE PRINCIPLES OF INTUITIVE REASON AND OF ACQUIRED SENSE ARE SYMBOLICALLY REPRESENTED BY TWO KIRINS, POSED IN ATTENTIVE ATTITUDE BY THE SIDES OF THE ROYAL CROWN AND INSIGNIA.

Antiguity usually symbolized the principles of procedure in life and death by mythical animals standing on three legs and holding up the fourth, like a pointer holds up its paw.

The Chinese Kilin is one of these mythical animals denoting principles of procedure; the Christian "Lamb of God, which taketh away the sins of the world," is another..

In the above crest the mythical KILINS or KIRINS of ancient Japan appear as representing the procedures of immortal Reason and of mortal Sense in support of the national life of the Japanese people.

The mountain-sheep KIRIN represents the principles of reciprocal Reason and of Life's unending procedures; the LION-KIRIN represent the principles of relative Sense and of death-going procedures.

The Crown and perhaps the Emperor enters as a to-order-setting power between these two principles of procedure to do the determining work in the evolution of civilization; even as the Genius of Creation, does the to-order-setting work in the elementary process of nature.

This crest is here produced only to impress the subject of principles upon the mind. For that purpose a fuller explanation is not just now needed.

The causes of mental and social evolution can be viewed from either side with equal effect, so long as both sides are unified in the free-agency character, for it is just as true that the thinking faculties have to-order-setting tendencies, which can ripen into capacities, as it is true that the organically evolved powers of speech have to-order-setting powers. The Old-man-genius, which speaks from the side of natural intelligence, can evolve to-order-setting powers as well as the Boy-genius, who speaks from the side of the thinking consciousness, but of course these two genii must be unified in the free-agency determining power, as explained in the above American ideogram. Language must retain its **diatheke** character, its power to connect the living and feeling consciousness, inherent in life, with the superstructural thinking consciousness, intellectually raised above the level of animal life. The polytheistic, heathenish views of character-powers are just as true to Fact as is the monotheistic view, in fact, both views rest on the same analysis of consciousness. All recognize the creative principles and the to-order-setting power in the three processes, the process of nature, the intellectualizing process of thought and language, and the process of civilization.

Logic and **logos** can be considered as either twins or as elder and younger brothers. Antiquity did both in its prosopopeia-system of depicting thought and language in connection with the parent-power of living, i. e. the world-wide consciousness, in individual character-power concentrated.

Logical only is that use of thought which employs language so as to hold the determining power to the to-order-setting principles in the eternal chain of natural causation—to the principles of life and of death—for there is nothing else in existence save that which is brougth forth by changeful character-powers in their procedures of life and of death. All existing things partake in these procedures.

Only the logical use of language can evolve intellectually true pictures of cause and consequence in nature's activity, and that work of thought which can so logically proceed cannot use the auxiliary verb "to be" in forming any of its conclusions. To elucidate the reason why the auxiliary verb "to be" cannot serve in forming logical conclusions of thought would carry us too far into the subject of dialectics, and away from our present purpose.

THE WORLD-PROCESS AS IT MAY BE SEEN FROM THE STANDPOINT OF THE MODERN EVOLUTIONIST.

The Darwinian idea of evolution and its later development are products of fragmentary and abstract aspects and conceptions of fact. The modern knowledge of evolution is based solely upon sensible, surface-aspects of fact. It contains only about twelve per cent of truth. This percentage is made to stand for the whole fact of evolution, and approximately for all that which is knowable of the process of life in nature. The shortcomings of the modern knowledge of evolution may be summed up as follows:

First: No evolution ever takes place without involution. The evolution of special organic powers is always accompanied by involution of seed-energy, and this involution is totally ignored by modern evolutionists.

In order to fully realize this first shortcoming in the present knowledge of evolution we must take an extended view of unobserved facts.

All life is organic. All organic diversity originates in seed-energy and reproduces seed-energy. There is an up and down to all life; and there are right and left sides to it also. Death works by the sides of life.

To think out just how and why life works as it does, will appear difficult for a time; thinking out means objective thinking which no historic mind has done and which therefore calls on the atrophied faculties of thought for revival from a rest of 6,000 years. Microscopic illustrations, when put into connection with old-time ideograms, will help to overcome all difficulties in the way of knowing life's inwardness. A little ideogram of 24 lines can tell more than volumes of words; but with words we must begin, because the modern mind is not used to reading ideograms. May no reader be discouraged because the following pages appear to be a hard study.

It cannot be difficult to realize* that all life is of organic structure. There is no non-organic individuality living anywhere.

To my mind the entire process of life appears to be a simple one, for the reason that I have come to know it by means of the aphonic sign-language which appeals to the mind through the eye, and which presents all of the eight changes taking place within radio-active digest-centers at the same time, and in their connection with the corresponding outer changes.

While the process of life is easily knowable through the eye, it is extremely difficult to explain it by alphabetical means, which appeal to the mind through the ear; FOR THESE APPEALS REVERSE THE NATURAL WORKING ORDER OF THE MIND—the order of nourishing the mind. The MIND works naturally from the oneness of its own inwardness, toward the multitudinous outwardness, while alphabetical THOUGHT works from the multitudinous outwardness, toward a, to it, unknown inwardness. The

All organic structures are built up of, what appears to be, individual cells greatly diversified in special ways. This fact is now well known to all biologists; but it is known only in its outer appearance and workings; it is not known in its inwardness; in the how and why of its activity. This how and why is what we must bring ourselves to know in order to know FACTS and not merely some aspects of facts; and in order to do away with theorizing about active causes.

THE UNITY AND DIVERSITY OF NUCLEOLUS AND CENTROSOME.

There are two distinct, we might say individual, but inseparable harmonizing and to-order-setting powers active in the process of life. These powers make this process one of evolution and involution. They interact reciprocally in both the mind-making and body-making procedures. They act with alternating predominance and subservience in every digest-center; they are vested in the nucleolus and in the centrosome. Perhaps these two powers had better be considered as two factors of one power. These two factors in the digest-center determine the counter-procedures in all evolution of bodily and mental powers and in all involution of seed-

products of this alphabetical work are not digestible in the way of life—of Common Sense or of Native Reason. Remember the mythical subject of Mosaics: OIKOS ASAROTOS. (See Illustration and Exp. in GOD SHAM.)

In fact, evolution and involution are simultaneous counter-procedures of the one life-power; but alphabetical thought cannot so represent these counter procedures. It can only deal with one procedure in one sentence, and it cannot even do this one-sided work in a way which is true to Fact.

Or again, in fact, evolution and involution center about radio-active digest-centers, in eight-fold procedures. This eight-foldness, single active, grammatical thought cannot follow; it can only present it in piecemeal ways to the thinking mind; and the alphabetically thinking mind cannot put the piecemeal work into living harmony. It cannot think objectively and comprehensively. Therefore it cannot master the subject of biology, unless it realizes its own short-comings and those of alphabetical language.

The aphonic sign-language works comprehensively, as does life; it works in the reverse way to that of grammatical, analytic language; it works as does the eye, and not as does the alphabetically trained ear.

By aphonic signs the process of life and death is easily made knowable; but the modern mind has no knowledge of the aphonic sign-language; it only knows alphabets, and by means of these it must struggle toward Fact-Knowing.

I know the process of life and death through my acquaintance with aphonic sign-language, and I doubt whether it can be made known by alphabetical means. If any reader should master the subject, he may possibly find alphabetical ways of presenting it in better terms than those which I employ; for he knows how my words have affected his mind, and what was left unsaid that might have presented the subject in more intelligible ways. He has experienced the influence of words on his mind, regarding this subject, while I have not had this experience—not having studied the subject by words. At all events, the subject of biology is a study into which but few minds will ever be able to penetrate by alphabetical means.

energy and dismemberment of bodily and mental organs. While the one factor makes for evolution or development of the organic body and its senses, the other factor makes for that of character power and seed-energy.

The character-power in cell-life, as well as in the entire organic body, is always double-active; it always acts through both nucleolus and centrosome, and so acting it always divides itself, to build up organic tissue and organic seed-going character-power.

All life is an organization of digest-centers. There are no single, independent, non-organic digest-centers anywhere in existence. All digest-centers live in organic communities, known as cells or corpuscles. All act not only through their own nucleolus and centrosome, but also through those of the entire organic cell, and so acting, they interact with other digest-centers within and without the cell. This interaction proceeds in reciprocal principles within, but it has its counter-procedure in a relative counteraction without, as explained in Chinese cosmogony.

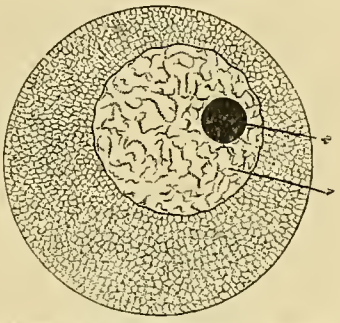

ILLUSTRATION 70.

EGG OF TOXOPNEUSTES. Illustration to cell-life, after Wilson.

The illustration represents the greatly magnified egg of a Toxopneustes. It may serve to illustrate the constituents of cell-life.

An egg is virtually nothing else but a family of digest-centers, as is every cell of life.

All digest-centers work on the same principles, they work in the egg as they do in the cell, although the former produce results apparently opposite to the latter, namely seed-energy and not bodily diversified organic tissue; but the seed-energy in its turn reproduces the organic tissue, on which the digest-centers in the egg had drawn for their sustenance and work.

In the body of the egg appears the nucleus (1) and the nucleolus (2) and innumerable little digest-centers, which seem separated from each other by small spaces indicated by the dotted division lines. No collective body-building centrosome appears because in the formation of seed-energy, body-building is minor work, and therefore the centrosome is a minor factor, and its body-building activity is not apparent.

The little fields within the dotted division lines may not be individual digest-centers, they may still be families of digest-centers, but they differ from the finer granulated digest-centers, which make up the nucleus.

All the three main parts of this cell, its body, nucleus and nucleolus, are composed of minor digest-centers, and each of these digest-centers has a nucleus and centrosome

All so-called individual cells are composed of co-operative digest-centers. Cells are communities of digest-centers—families of digest-centers which by further evolution of digest-powers and by further organization form states of digest-centers; that is, bodily organs for re-digestion of nourishment to sustain the higher bodily and mental faculties and powers.

The pancreas, for instance, is such a **State** produced by organization of families of re-digestive digest-centers.

All digest-centers are bi-axial; all have a bi-polar nucleolus and a bi-polar centrosome, and hence all have four poles of activity and passivity, like those of the larger community-cells which may be seen by microscope. The polar activity works alternatingly, ingesting and egesting.

In digest-centers is done all the work of life's evolution and involution and of development and envelopment.

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of its own; not only presumably, but actually, as we will see in the later chapters on Chinese cosmogony.

The digest-centers in the three parts of the cell, here shown, occupy three different stages of evolution. The lowest stage is in the main body of the cell, the next higher in the nucleus and the highest in the nucleolus. The digest-centers in the low stage prepare food for the re-digestion by digest-center in the higher stages.

The digestion and re-digestion is a matter of assimilating more and more conscious energy and of eliminating bodily substance in the way of moisture by exhalations or special provisions, such as vacuoles, or circulation channels near the housings of the digest-centers.

Each digest-center has its housing, which encloses the limits of its radio-activity.

There are interstices between the housings such as the dotted division lines in the illustration seem to indicate, or may actually indicate. Through these interstices circulates the nourishment and also the refuse in special channels produced by the polar activities of the two axes in each digest-center, the axis of the nucleolus and of the centrosome.

This circulation of nourishment and waste in the body of the cell moves in opposite directions to that in the nucleus; and the circulation of the one constantly mixes with the other, through the housing of the nucleus (3).

Besides the housing each digest-center is surrounded by its PERIECHON, which is the specially conscious factor in the digestive work and which moves about the digest-center and through the interstices into the "field" surrounding the body of the cell.

The field at large is the "PERIPHORA"; on it the outer digest-centers of the cell draw directly for all their nourishment; the inner ones for part of it only.

The PERIPHORA and the PERIECHON do not appear in this illustration. The latter is never visible; it is, however, perceptible and knowable only by its work, as elsewhere explained.

The housings of minor digest-centers, the interstices and other constituent parts of the cell or protoplastic mass, are not always visible, as in the above illustration. When not visible, the protoplastic mass is called a syncytium by biologists. This name, however, is a misnomer; it indicates only a limitation of the microscopic power, which fails to show the all there is. The minor digest-centers in the body of the cell often develop themselves into visible nuclei. They form cell-families in the body of the so-called cell. All protoplasm is composed of digest-center families.

The cell, of course, is always spherical in form and not a mathematical plane.

Life, in all its phases, is a digestion-process. The work of determining the entire process of life is done by radio-active conscious energy and character-power in digest-centers.

If we know what takes place in the digest-center, we know the causes of life and of death.

DIGEST-CENTERS.

All digest-centers have certain characteristics in common, but they have also their own individual character-power and special aptitudes. That which all digest centers have in common we must **know** before we can **judge** their special aptitudes.

All digest-centers have a **radio-active character-power,** which controls the assimilation and elimination of nourishment in two ways. There is nothing stationary in the life-making process. The character-power in all life is double active, and the ways in which it works are double-track counter-procedures. These counter-procedures cross each other in the focus of digestive and radio-active character-power, and they move toward and away from this focus. The focus is formed by axial intersection of nucleolus and centrosome.

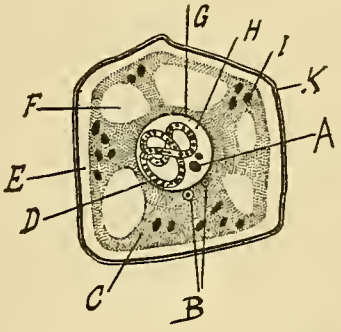

ILLUSTRATION 69.

ILLUSTRATION TO CELL-LIFE.

All vegetable and animal types of life are organizations of cells; all are built up by the two determining character-powers which live in the cell. These two powers are vested in the nucleolus and in the centrosome. The latter prepares the special means; the former uses the means prepared to do the organizing work. Both, however, can do their work only by virtue of their double connection with the local "Periechon" and the world-wide field of conscious energy. These two factors in all life are explained in the evolution from TI to Shang-Ti in Chinese cosmogony.

It is well to remember that the prehistoric Chinese represented cell-life symbolically, by their Tai-Kih ideogram, and that they knew more about the origin and workings of the constituent parts of life, and in fact of all evolution, than does modern science. It is also well to remember that this pre-historic learning had found its way.

Nucleolus and centrosome act as two axes which cross each other in the spherical form of the digest-center. That which appears as a focus under the microscope is a pole of the axis. The two axes have four poles of outer-activity and four poles of terminals of inner activity in the crossing point, or focus of digestion. The polar activity is not constant, but alternating, by reason of changeful counter-procedures to and from the focus of digestion. In these alternations, four kinds of assimilation and four kinds of elimination succeed each other in certain cyclic order—the alternations of hunger of satiety.

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to some degree, in the learning and religious beliefs of all great historic civilizations.

The nucleolus, the center of that digestive power which produces organic character-power and seed-energy (mind-making energy) also egests a certain conscious energy into its environing field. The nucleolus does this egesting, predominantly, at one stage of its cyclic development, and at another opposite stage it draws on this field, predominantly, i. e., ingests conscious energy. As here depicted, it is in the midway, between these two opposite stages of its development. It has just finishd producing the cell-string, D, and its powers are beginning to divide themselves as elsewhere shown and explained. This stage of development the Greeks called KOROS, satiety, in distinction to the opposite stage of hunger and need, CHRESMOSYNE. As the nucleolus builds up the cell-string, so do these stages alternate repeatedly.

The going into satiety is the anados; and the going into need is the kathodos, in the cycles of assimilating nourishment and of imparting it to the various digest factors, which do the upbuilding of character and body-building within, and to the periphora without.

The principal factors in the up-building of character are the cell-string, D, making for seed-energy, and the bioplasm of the nucleus, H, the bodily vestment of the nucleoulus. A third factor, of course, is the centrosome; it receives little from the nucleus and gives much to it, at the stage shown in the illustration.

Nucleolus, A, and centrosome, B, interact reciprocally as shown in other illustrations. Both act within the sphere of the cell's body as axes and not as mere points, as all illustrations make it appear.

The line of greatest activity or axis of the nucleolus intersects that of the centrosome at changeful angles, during the cyclic progress of the cell's development.

All the widely varying structures of the organic bodies of animals and man are composed of organic digest-center families. The stomach is not the only digest organ in the organic body. Every particle in every living organism has its own digest-power, and its own determining radio-activity in this power. The radio-activity forms the axes of circulation and of counter circulation.

In highly organic life, the axis, or line of greatest activity of the nucleolus, mainly builds the ganglion fiber, axon. over which the mental energy of the organic body does its work; while the axis of the centrosome builds mainly muscular tissue.

The centrosome, B, in this illustration appears as approaching the stage of satiety within 45 degrees of its fullness. The stages of satiety and hunger, in both centrosome and nucleolus, return twice in every cycle of digestive activity.

The centrosome builds up the protoplasm, C. But this building is not done directly by the centrosome, B, shown in the cut; it is done by the centrosomes in the minor digest-centers of the protoplasm which are not here visible. Both the bioplasm of the nucleus, H, and the protoplasm, C, the so-called cytoplasm of the outer part of the cell, are made up of minute digest-centers and each of these centers has its own centrosome and nucleolus.

POLAR ADJUSTMENT OF DIGEST-CENTERS TO ENVIRONMENT.

In the up and down counter-procedures, digest-power works alternatingly toward making special organic power and toward making of seed-energy.

In the lateral or right and left counter-procedures the digest-power works from life to death, from death to life. The dead food eaten comes to life in the digest-center and something alive in the sphere of the digest-activity goes deathward.

Digestion is a constant process of assimilation and elimination in cyclic alternations, which produce organic character and seed-energy through the up and down workings of the nucleolus, and body and sense through the lateral or right and left workings of the centrosome.

The entire cell is an organic state or community, of which the reciprocally active digest-centers and families of digest-centers are the constituents. .Reciprocally active means that the lesser digest-centers in the cell-organism nourish the greater and more highly evolved digest-centers in the nucleolus and centrosome, and that the former are in return nourished by the latter. This return nourishment is largely a sewage redemption.

All the capacities of highly evolved organic types of life have their elementary tendencies in the most primitive digest-center. The word evolution means the convertion of primitive tendencies into more or less highly evolved capacities of life and mind.

The line of greatest activity, or axis of the nucleolus, A, causes its digest-power to circulate or cycle from west to east; while the axis of the centrosome, B, causes its digest-power to cycle in the opposite direction from east to west; hence the satiety and hunger stages of these digest-powers part and meet in the neutral points of the cyclic digestion. Self-division of the cell takes place at some of these meeting-points, eventually. Counter-cycling is explained later.

As the two great digest-powers cycle in opposite directions so do they, meeting and parting periodically, deal out nourishment to all the digest-centers in the entire cell, and so do they bring them into contact with changeful nourishment.

As the to-order-setting power in all digest-centers is a twofold bi-axial power, so is the nourishment needed by all digest-centers of a twofold kind. Both body and mind-making power exists in the digest-centers of protoplasm and of bioplasm, but it exists in very differently proportioned duality of power. The protoplasm makes mainly bodily power and tissue, while the bioplasm, which is largely re-digested protoplasm, makes mainly character-power; each in its own way of preparing nourishment for the community-centrosome, B, and nucleolus, A, of the cell-community.

While these two community-powers in cell-life are nourished by the minor digest-centers in the cell, they in turn provide the digest-cnters with nourishmnt and special digestive powers; for the interaction between the individual digest-centers of the cell and the organizing powers of body and mind vested in nucleolus and centrosome, is of reciprocal character; it gives and it receives.

The stage of development, at which the centrosome, B, appears in the illustration, is known as attractive; it is what the Greeks called "sympheromenal," that is, bringing together or receiving more than giving. But this SYMPHEROMENAL stage does not long remain as shown in the illustration. A quarter turn in the cyclic course of the cell's development, or in its digestive procedure, converts the sympheromenal preponderance in the centrosome's activity into the DIAPHEROMENAL preponderance; and this also passes through various changeful stages during its semi-cycle. It makes the

The nucleolus is a mind-maker in the way of digestion; the centrosome is a body-maker.

The radio-active digest-center, like a cross, has four branches; two for evolving mind power, character and seed-energy to perpetuate the process of life; and two for developing body and sense to deal in death-going ways with the environment.

(See Ancient American Crosses.)

The digest-center assimilates something and eliminates something, and thereby it grows in body-making and in character-making power to a point of fullness or maturity, and to self-division.

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heretofore attractive centrosome a distributing center, as shown in illustration No. 72 and elsewhere in the various changes of activity in centrosome and in nucleolus.

It is the DIAPHEROMENAL activity in both centrosome and nucleolus which egests certain kinds of conscious energy, the bodily and mental kind, into the PERIECHON. But this same DIAPHEROMENAL activity also plays its part in causing self-division of the cell, as more fully explained and illustrated in later chapters.

As the nucleolus surrounds itself by the bioplastic nucleus, so does the centrosome surround itself with an improved re-digested protoplastic body.

The digestive workings in the body of the cell pass through a course of evolution, which begins with digestive to-order-setting of elementary stuff, and it leads up, by way of repeated re-digestion in the various digest-factors of the cell, to the mind and character-making power of the nucleolus. Six stages of re-digestion build up the cell-life in the human body, according to antiquity.

D, the cell-string, is the main factor in the self-division and propagation of the cell. It, like all parts of the cell-body, is made up of two kinds of digested stuff. One kind of preponderatingly DIAPHEROMENAL capacities, acts as the very mind or character-maker; while the other kind of mainly SYMPHEROMENAL capacities acts as the body-maker of the character or seed-energy; the cell-string has both bodily tissue and character or seed-energy. These two kinds of stuff in the cell-string are known as chromatin and achromatin. They are so known for no other reason than that the one kind in vegetable cell-life readily absorbs certain color, and the other kind does not.

The massing together or alignment of the chromatic bodies is called chromosome, for no good reason. At its maturity it contains the DIAPHEROMENAL character-making-power in form of seed-energy. Working in conjunction with the centrosome, part of the cell-string furnishes the seed-energy to the new cells after self-division of th old-cell.

E is the cytoplastic membrane or inner housing of the cell. It encloses the limits of the activity of inner digest-centers, working in connection with the centrosome. This membrane is built by the cytoplastic digest-centers, and a certain diminished assistance is given them by the centrosome.

K, the outer housing of the cell, is also of joint structure. It is built by the digest-centers within the cell and by those in the PERIECHON, which surrounds the cell.

F, one of the so-called vacuoles in the body of the cell. In the cells of plant life, the vacuoles are said to contain watery sap; but all cell-life has similar, though lesser, means of storing away both moisture for digestive purposes and for receiving eliminated waste. Hence, the vacuoles are probably of two different kinds. Each kind probably serves a distinct purpose—one that of storage, and the other that of sewerage.

Too much water or too little water is equally fatal to the life of the cell, especially in animal life.

The self-division of digest-centers is a propagation of digest-centers and a making of more individual and eventually organic life-power.

This going into maturity and into self-division of digest-centers is the beginning of going into organic growth and into its return to seed energy.

The individual life-powers, which are made by self-division of digest-centers, co-operate; and co-operating they form the organic cell or corpuscle, which is visible under the microscope. This cell looks like an individual form of elementary life, but it is an organic state of digest-centers; and it again has its two axes, that of the organic nucleolus and that of the organic centrosome. This organic cell-life again grows to organic maturity, and regenerative seed-power, just as does the digest-center. This growing again results in self-division. It again propagates units or organic life which again co-operating, eventually form the organic body of vegetable and animal species in a way now well known by appearance, but by appearance only.

The regularly educated Chinese physicians have ways of regulating this amount of moisture through digestive treatment. They detect its undue variations in pulsation. I have seen wonderful effects produced by the digestive treatment of excessive watery substance in the various functional digest-centers of the human body, and of consequent secretions of watery stuff in the parts of the body, for instance in cases of dropsy. And I have also been given unquestionable proof that certain abnormal mental states produce digestive disorders of the watery kind that is both too much and too little moisture in and about the functional digest-centers, or rather organs. I was told by an eminent Chinese student of medicine, a Han Lin scholar, that tendencies to catarrhs and consumption are favored by too much moisture in digest-centers, and often also the undue thirst for liquor. The reduction of temperature in the digest-center, due to the presence of too much moisture in them, is said to favor colds, fungus growth, invasion of catarrh germs, etc.; and the presence of too much sewerage water in and about certain digest-cells is said to produce specific diseases.

This may be only a theory, but the Chinese consider it a fact; and they certainly have much knowledge regarding the work of digestion on the human body. I mention this theory here only for the reason that the vacuoles in cell-life, or similar provision about it, may serve the double purpose of stoarge and sewerage, and that the bursting or extension of one vacuole into the other may prove fatal to the cell by connecting sewerage with storage-moisture. If this be a fact, it might prove of importance to medical science.

G is the housing of the nucleus, built by outer and inner digest-powers, and hence of a double tissue, but excessively thin; yet it is an evidence of the evolutionary steps in digest-power, and of the two different kinds of limited digest-powers.

I, light-bodies, independently circulating families of re-digestive centers in the cytoplasm, probably attending to the functions of the vacuoles.

The Fu-hsi School, more than 6,000 years ago, and King Wan, its imitator, about 3,000 years ago, divided the cyclic changes in the digest-center into eight stages, and they showed the changeful activity of the three main factors—character-energy from PERIPHORA, reasoning-power from nucleolus, and sense-power from centrosome—at each stage by cyclic arrangements of Trigrams. The words used to explain these

The cell is not the primitive form of life; the digest-center is that form.

Radio-active, consciously energetic character-power is the first cause of life's elementary form, and undergoing changes in the way of evolution, it is also the active cause in the double-track way of evolution and involution.

The reason why and the method how the digest-center works is not unknowable. It has been known and it can be made known again. The mind has powers to follow the first cause in the way of evolution. It, itself, has passed over this way to its present stage of development.

The **reason why**, in Chinese cosmogony, was known as TI and Shang Ti, meaning something like individual and universal radio-activity of conscious energy. The **method how** was known as Yang yin and Yin yang—the two lateral powers, embodied in the two polliwogs of the Tai-kih and referring to the **something** which is worked through nucleolus and centrosome. This something is the **double active stuff of existence** for which no modern name exists; it is the diapheromenon sympheromenon of the early Greeks, meaning "**that which carries apart, that which carries together** are inseparably united in all the **stuff of Existence.**

(See definition of the original, non-material meaning of the Greek word **atom** in the glossary.)

One cause, active in this stuff, does all the cosmic and vital work in the world-process through ferment and digest-centers; it does it in simple ways, but not in ways considered by our monists. Of all that later.

The elementary process of life is a to-order-setting, focalizing and balancing of counter-forces, by radio-active energy in digest-

changeful factors are so excessively difficult of interpretation that no sinologue has been able to make head or tail of them. The Han Lin College has adapted King Wan's arrangement, which I consider faulty, although I have been given abundant evidence of the efficiency of this arrangement in application of medical science. The inaccuracies are not apparent in this application, but they become so when considering the world process, as a whole.

I have elsewhere shown and explained the difference between Fu-hsi and King Wan. For the present, four kinds of digestion should be borne in mind, as charactristic of all cell-life:

First—The digestive preparation of protein.

Second—The saccharine.

Third—The alcoholic or spiritous.

Fourth—Oily.

The first takes place MAINLY in the elementary digest-centers, the second in the community-centrosome of the digest-family or corpuscle; the third in the nucleolus,

centers, as explained in the chapters on Chinese cosmogony. The to-order-setting radio-active power builds itself up by digestive process—by assimilation and elimination—and it multiplies itself by self-division. It is double active; it acts in opposite directions at the same time, with diapheromenal preponderance in one direction; with sympheromenal preponderance in the opposite direction; and it reverses this activity periodically. It does this by acting through its two axes, which counter-rotate, giving the digest-center its spherical form. The counter-rotation is produced by sympheromenal preponderance, now on one side, now on the other, as elsewhere explained.

The counter-rotations cause a certain meeting and parting—pulsations—and alternating stages of satiety and hunger of four kinds (known as Koros and Chresmosyne to the Greeks). In these stages, four kinds of doing-power are evolved in the elementary function of digestion. These doing-powers pass through stages of evolution in the organic development of the cell-family, and of the growing organism. Two of them do vital work; the two others do sewerage work. All four pass through six stages of evolution in the higher animal body. This passing through stages of evolution or involution, the Greeks called "enantiodromia";that is, carrying the character-power through the counter-procedures of evolution and involution, or through Anodos and Kathodos.

To explain: The food which we take in the stomach does not make mind-power and thought-power at once. It passes through six stages of higher and higher re-digestion from its initial reanimation by digestion, before it evolves fully conscious power, or contributes to the support of this power in man. Remember this for the present as the three daughter-cells and the three son-cells of the digest family scheme of King Wan, the alleged author of the Yh-king.

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and the fourth in the cell-string. Of course, all these four kinds of digestion run into each other in widely varying proportions. The digestion in nucleolus and cell-string is virtually the same counter-procedure, differing only as changes in the semi-cycles. The alccholic digestion makes the organizing character and the oily digestion makes the character or seed-energy.

I am using these simple adjectives to describe the cyclic changes of elementary digestion, because they connect themselves with the old-time explanations of the facts, and no scientific terms exist to describe the facts. Chemical terms must not be used; they are misleading.

DIGESTION IS NOT A CHEMICAL PROCESS. IT IS A LIFE-, MIND- AND CHARACTER-MAKING PROCESS.

The evolution of organic digest-powers is a matter of four-fold, cyclic and self-reversing counter-procedures about a double-active and changeful character-power. The procedures in digestion which produce organic bodily power and special organic character work on the same principles of life and death, but in cyclic reversal to those procedures which produce seed-energy and its apparently non-organic character.

The evolution of seed-energy proceeds by multiplying and adding co-operative cell-communities to cell-communities, and by evolving special digest-powers in the more complex growing organism.

The involution of seed-energy proceeds on the same principles, but in the reversal of their cycle procedures.

The steps of evolution in their advance, develop body and sense-power at the expense of mind-power, vested in seed-energy. The steps of involution which generate seed-energy, proceed by development of mind-power out of body- and sense-powers, and at their expense. The digestion which produces seed-energy draws on the body-powers for part of its needs, but for part only; it draws on something else for most of its needs.

ILLUSTRATIONS TO THE WORKINGS OF THE DIGEST CENTER.

All digest-centers work as communities. All have both body- and character-making powers, vested in centrosome and nucleolus, which illustrations may help to make clear.

The elementary digestion-process passes through four metaphases of fundamental digestion and re-digestion, from hunger to satiety, from satiety to hunger, in cyclic counter-procedures.

Upon these four phases all life builds up special abilities, by special re-digestion.

All capacities of organic life have their foundation in tendencies to life, contained in the protoplastic stuff of existence.

Digestion converts elementary tendencies to consciousness and life into active capacities. This transition from tendencies to capacities is an evolution of character-power in the digest-center—in the nexus where the axis of the centrosome's activity crosses the axis of the nucleolus' activity within the sphere of the cell.

The axes of the centrosome and nucleolus are bi-polar and alternatingly double-active and passive, both within at the nexus, and without at the environment of the cell. Hence eight simultaneous changes of activity take place. None of the changes are absolute; they never produce permanently this thing or that; all are only changes of predominance and subservience, of ingestive and egestive activity or passivity. The passivity originates in the alternating predominance of the power of the nucleolus over centrosome, or vice versa.

The whole process of digestion is one of interaction and counteraction between centrosome and nucleolus, and of both with their environment.

All cells have four constituent parts which require special notice above all others.

The seed-making digestion evolves all mind-power, and discards body-power as sewage—in part redeemable sewage. The evolution and involution of seed-energy has its exact parallel in the more elementary digestion-process which supports body and mind in organic life, and the same reversal in the double active character-power and the consequent procedures take place. This reversal in character-power during its cyclic counter-procedures, the Greeks knew as **metaboling.**

The powers of life move in double-track counter-procedure under changeful dominance of character, alternating toward organic development of powers and toward those of seed-energy. This double-track way of going and coming, or rising and receding is not easily made clear in a few words. It was known to the early Herakleiteans, as **Anodos and Kathodos.** Even these comparatively late thinkers in the world's retrogressive development of

First, the protoplastic body of the cell, C, in Illustration 69, in which work the lowest of individual digest-centers in the cell community about the nucleus of the cell community.

Second, the bioplastic body of the nucleus ("H" in Illus. 69), which surrounds the nucleolus; in this the higher of individual digest-centers in the cell-community work to supply nourishment to the nucleolus.

Third, the centrosome of the cell-community ("B" in Illus. 69).

Fourth, the nucleolus of the cell-community ("A" in Illus. 69).

The individual digest-centers prepare some food for the community centrosome and nucleolus, and are in turn partly nourished by them.

The Four Fundamental Phases of Digestion in the Cell.

First phase: The fundamental digestion we may conceive as beginning with the ingestive action of the centrosome at one of its outer poles, where it draws on the protoplastic matter of its environment and converts it into the bodily protein of the cell. The nucleolus draws on this bodily protein through one of its poles at the nexus and converts it into a mental protein or bioplasm of its own kind in the nucleus.

Second phase: The centrosome draws through one of its inner poles on the bioplasm in the nucleus, prepared by the nucleolus, and converts this bioplasm into saccharine for the growth of its immediate sphere; while the nucleolus draws on its individual field of **substance** (periechon), and converts part of the stuff in its nucleus into saccharine, thereby beginning the formation of the cell-string.

Third phase: The centrosome draws through its outer pole on its individual field of **substance** (periechon) in its environment, and converts the stuff in its immediate sphere of activity into a primitive sense-power; the spirituous, bodily sense-power. Upon this the nucleolus draws through its inner pole to convert it into inner mind or character-power, by its higher spirituous digestion in the nucleus.

Fourth phase: The centrosome draws through its other inner pole on the nucleus, and so drawing converts part of its own spirituous sense-stuff into an oily body stuff, while the nucleolus draws through its other outer pole on the world-wide field of substance to convert its spirituous stuff in the nucleus partly into an oily seed stuff.

mind-power seem still to have had much knowledge of the process of life, and in fact, of the world-process as a whole. This sort of knowledge seems to have turned up very seldom during the last 6,000 years.

So far the short-coming number one in the Darwinian theory.

Second: Organic life does not originate in the single cell; it originates in radio-active character-power. Every so-called single cell consists of innumerable radio-active digest-centers. Every type or species of life has its own character-power, active in its digest-centers; and this character-power perpetuates itself not only

ANODOS AND KATHODOS IN HIGHLY ORGANIC BODIES.

These eight ingestions make a cycle of elementary digestion which constantly repeats itself, building up both the body and character-power of the cell; that is, the two spheres of activity which surround both the centrosome and the nucleolus. This activity cycles in opposite directions through the body of the cell; and while it is predominately ingestive in the centrosome, it is predominately egestive in the nucleolus. At the completion of the cycle, it reverses itself. It becomes predominately egestive in the centrosome and predominately ingestive in the nucleolus.

When the body of the cell has grown to maturity, the dual powers in both centrosome and nucleolus metabole; that is, they reverse their activity and passivity in interaction, one after the other, and the digestion-process proceeds in the opposite way. It makes no longer for growth of the cell, but for self-division.

There is an up and down to the four fundamental features of digestion. The drawing on the individual field (periechon) and the world-wide field of conscious energy by the cell-life in the human body, is done through the lungs. The digestion from the lungs is downwards (Kathodos); the digestion from the stomach and intestinal organs is upward (Anodos). The upward and downward digestion find their first unification in another organ, presumably the liver or the pulmonary aveoli in the liver, on the upper side and in the pancreas on the lower side.

The re-digestive organs in the human body produce germs of re-digestive character-power. The products of these germs have also an up and down career which again finds re-digestive unification in various organs, such as the spleen, and various glands.

The digested and re-digested products coming from the stomach always meet the digested and re-digested products coming from the lungs. These latter products have great penetrating powers; they affect and nourish all cell-life in the body, as well as the circulating blood.

Chemistry has nothing whatever to do with digestion. Chemical distinction and terms are not applicable to the digestion process. They are not only misleading, but they falsify the facts. The digestion-process makes life, mind and character-power; and with these facts, chemistry cannot deal. The chemical aspects of the digestion-process can only deal with aspects of deadened matter; they cannot take vital energies into consideration. Such words as hydro-carbon, oxygen, nitrogen, carbonic acid, etc., have nothing to do with the digest-power in the human economy.

Chemistry is deplorably misapplied by the medical profession. Chemical studies can never lead to any knowledge of life. Many a life has been destroyed by subjecting the digestion-process to chemical treatments and experi-

by periodic re-embodiment in seed-energy, but also by surrounding itself with a field of conscious energy (Periechon), upon which the digest-center draws alternatingly for varied nourishment of both bodily and character-powers during its organic and seed-going proceedures, and also for ability to adapt itself to environment. These palpable facts, well known to remote antiquity, modern biologists have entirely overlooked. They have overlooked the natural connection between inner radio-active character-power and outer phenomenal changes. In fact, it has not occurred to them that digest-centers are radio-active, and the periechon they have not yet discovered, although it is in daily evidence. Anybody can smell it.

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ments. Chemistry is great in the ways of death; but it is fatal in the way of life. Of that later.

The dogmatic school of medicine in China has produced complicated diagrams, which illustrate the up and down workings of the various re-digestive organs in the human body, and the unification of these workings. Whether these diagrams are of valne or not, I do not know. When they were explained to me, years ago, I did not take any interest in the subject. I had little faith in Chinese learning at that time. I have since had much reason to change my mind.

SELF-DIVISION.

The self-division is a matter of four phases, in cyclic counter-procedures from "holy" hunger, to "holy" satiety; from "holy" satiety, to "holy" hunger; not unlike those of the above-described digestive procedures, but reversed in their active causes and order of procedure.

All life, vegetable, animal or human, lives on four kinds of nourishment; two kinds sustain the physical nature through digestion by the centrosome, and the two other kinds sustain the mental nature or character-power by digestion in the nucleus. Even plant life drawn on nourishment which has tendencise to the evolution of mental powers.

These four kinds of nourishment are drawn from the Periphora, as the Greeks called the interplanetary atmosphere and soil when referring to their capacities of furnishing nourishment for life, mind and character-power.

Four double-active stages or eight phases in inner and outer activity of the organic community-centrosome and nucleolus are notable in those cyclic changes of ingesting and egesting ponderable matter, imponderable substance and conscious character-energy which cause self-division and propagation of elementary cell-life.

Self-division of cell-life may be said to begin when the organic centrosome in the full-grown community-cell becomes a visible distributive, egestive power—an aster (see Illustr. 76).

First: It egests some spirituous and oily vapor at one of its outer poles, into the periechon, while the nucleolus egests some similar stuff at its inner pole into the body of its nucleus, overcharging the cell-string, and thereby making for its division.

Second: The centrosome at its inner pole, egests some product of its energetic digestion into the nucleus; thereby promoting the division of the cell-string; while the nucleolus egests some of its similar stuff into the periechon.

Every digest-center, every organic body, every kind of seed, has its own smell, and this smell is the effect which the egested substance of digest-centers produces upon the human faculties of sense. Of the **periechon** later.

Third: All evolution and all involution of life's powers proceeds by constant **interaction and counteraction** with the forces of death, and no true idea of either evolution or involution can ever be formed without considering the forces of death, for in these forces character-power has a footing, and only the constant interaction and counteraction of living character-power with dead character-

Third phase: The centrosome egests the oil-spirituous product of its digestion, through its other outer pole, into the periechon; while the dividing nucleolus egests similar stuff into the nucleus and through it into the cell.

Fourth: The centrosome, through its other inner pole, egests the remnant of the surplus product of its energetic digestion, into the nucleus, thereby finally pushing apart the dividing cell-string and finishing the division of the cell; while the nucleolus egests part of its remaining oily-spirituous energy in the periphora, or world-wise field of conscious energy. This egestion of oily-spirituous energy, produced in the digestion-process of highly organic life, manifests itself in the smell of plants and animals, and otherwise. (See Illustration No. 75.)

ILLUSTR. 75. COMBUSTIBLE EGESTIONS.

The spirituous-oily egestions of digest-activity may find illustration by enclosing plant-life, such as that of the little ash, dictamnus fraxinella, in a glass case for a time. When opening the case the accumulated egestions can be ignited.

The egestions of vital energy which the highest of re-digestive character-centers in organic life emit into their environment, and which we can usually notice as by their odor, are of far greater importance to knowledge of life than the emissions of waste or sewage. The vital egestions have much to do with the growth of the organism, with its adaptation to environment, with development of seed-energy and with propagation of new life. All of which biologists have so far ignored. On the other hand, the sewage emitted by digest-centers is death-going. Biologists describe the evolution of seed-energy in organic life in very different ways from those above indicated.

All the digest-centers in the cell-community, as well as the entire cell-community, have these four fundamental metaphases of procedure in common; but the cell-communities, which build up special types of vegetable or animal life, have additional metaphases of digest-powers in their character-center. They take some steps toward the six-fold evolution of character-

power, with the forces characteristic of death, makes evolution possible.

Life is not only accompanied by involution of seed-energy, but it is in part a death-going procedure, for all that which goes

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power in the digest-centers of human life. They do this through the evolution of organs such as pancreas, spleen, kidneys, etc., in which additional digest-powers are developed and unified.

There is a constant working toward seed-energy in all proceedings toward organic development.

Evolutionists have not yet discovered the fact that there is **vitality** in the atmosphere, which cannot be detected by chemical analysis, but which does much work toward reanimating the dead food taken into the stomach, and even more work toward generating and nourishing seed-energy. Science has not discovered this atmospheric vitality, because science can only deal with perceptible matter and forces. Vitality is conscious energy vested in so little substance that it appears non-substantial to the superficial investigator. The field of conscious energy, which pervades the atmosphere and penetrates all life, is vested in even less substance than is electro-magnetism, which modern science has but recently come to know as an all-penetrating field.

Remote antiquity knew the life-sustaining field of conscious energy in both its individual and universal characteristics and it also knew the influence of this field upon life, and upon digestion and procreation. It formulated this influence, so as to make it widely known.

Modern biologists have not even discovered the **four fundamental features** which characterize all digestion, and which I have described as cyclings from protein to saccharine, to spirituous and to oily changes, nor have biologists any even approximately true idea about the six rising steps of evolutionary redigestion, from the first physical animation of food to the highest stage of mental and intellectual powers. What they know of anabolism and catabolism is not anything like the facts.

There are many kinds of up and down steps in the process of digestion—many special kinds of anodos and kathodos. There is one kind in the workings of the minutest digest-center; another in the cell-community or corpuscle; another, still, in the development of every organoid; still another in envelopment of seed-energy. In fact, there is an up and down—a progression and retrogression step—in life at all its stages of development and envelopment of physical powers and sensations, or of evolution and involution of mental powers and seed-energy. The body-making digest-power cycles at all times, up and down, now mainly making bodily tissue, and now mainly bodily sensation. So does the mind-making digest-power cycle; now making mainly organic character, and now mainly seed-character. As the two digest-powers cycle up and down, so do they ingest and egest earthy matter and atmospheric or celestial vitality.

Our chemical biologists cannot find any evidence that life exhales vitality as well as inhales it. They imagine that life breathes only wasted gases into the atmosphere. The odor of flowers seems as dead and deadly to them as the stench of decay. They do not know that all life permeates its environment with vitality. They think life poisons its own atmospheric surroundings. It poisons its atmosphere only if it breathes from diseased lungs or from sickly vitality. The healthy breath poisons no more than the healthy kiss.

Alchemy and organic chemistry are twins of the spook-kind. There is no organism without vitality. There is no way of considering vitality in chemical analysis.

into evolution of life and involution of seed-energy makes sewerage of two kinds, and this sewerage goes deathward. As some dead substance or matter enters all life, to be assimilated, so some living substance or matter is mortified and eliminated. The evolutionists overlook the fact that the powers of life constantly interact with the forces of death; that life makes sewerage and re-animates sewage.

Fourth: The evolution and involution of life is accompanied by the involution and evolution of death at all times. The changes which take place in the process of death are quite similar to those which take place in the process of life, and this fact is ignored by all evolutionists.

The process of death proceeds on principles similar to, if not identical with, those of life. It prepares dead sewerage matter for the protoplastic and bioplastic work of digest-centers.

Fifth: The power of the single cell-community to go into further organic evolution is a conscious, determining character-

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In order to get a clear idea of the digestion work done we may do well to first consider in detailed ways the visible changefulness of the parts that do the work.

ILLUSTRATION 71.

Nucleus and centrosome at an apparently inactive stage during self-division.

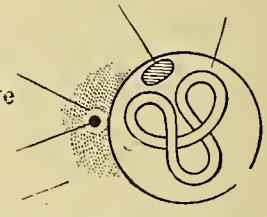

Illustration 71 shows a nucleus of cell-life as a circle in which may be seen the seed-string and the nucleolus, the latter as a dark spot. On the outside of the circle, but close to it appears the centrosome as another dark spot within a small circle, surrounded by the protoplastic mass of the cell, shown by little dots.

This stage of development in seed-energy biologists consider as one of total rest, but it is nothing of the sort. The seed-energy appears outwardly at rest, because it is ingestively active. It draws only on the invisible periechon to nourish itself. In its inwardness it is re-digestively active and undergoing changes. It is slowly and imperceptibly making for maturity and self-division. Seed-energy is never idle. It lives by nourishing itself. It may not take material nourishment as does the organic body, but in ingests substantial and conscious energy imperceptibly, at all times. The walnut or almond on our dining table does so nourish itself while it is alive and retains its powers to reproduce the kind of tree on which it grew. And even when it is dead and no longer has these powers, it is being penetrated by the field of substantial energy, as are all things in existence. If it were not so penetrated, it would go speedily into disintegration. Lifeless under-currents support the order of life.

power within the digest-center, and this inner power stands always connected with its special field of outer conscious energy, the local periechon by which every digest-center surrounds itself. This

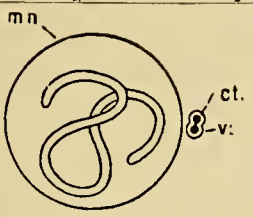

ILLUSTRATION 73.

Appearance of nucleus or cell-core and centrosome at the first stage of self-division, called mitose, karyokenesis or cytogenesis.

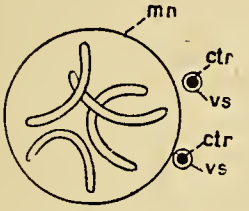

ILLUSTRATION 73'.

Appearance of seed-string and centrosome at second stage of self-division.

Illustrations 73 and 73' show what might be called the first and second stages of self-division in the radio-active digest-power vested in the nucleus or core, MN, of the community-cell. In Illustration 73 the seed-string in the core, MN, has just divided itself at one point. The centrosome, ctr, in its sphere, vs, begins to spread its poles. In Illustration 73', the seed-string has divided itself into four seedling-parts, scientifieally known as chromosomes. The poles of the centrosome have spread apart, and they should at this time show the beginning of egestive activity—the so-called making of asters.

ILLUSTRATION 72.

Appearance of centrosome and seed-strings at third stage of self-division.

ILLUSTRATION 74.

Appearance of scion-cells after formation of new seed-strings.

Illustration 72 shows the highest stage of egestive activity at the poles of the divided centrosome, ctr; and it also shows, by the dotted lines, A and F, the inner interaction between the centrosome activity and that of the four seedling-parts of the chromosome. The outer poles of the centrosome have formed the egestive radiations known as asters. All that is left of the nucleus are the four parts of the divided seed-strings. The parts appear bent by reason of their inner polar activity, and they appear placed in regular arrangement by polar influence from without, so as to furnish equal seed-energy to the two scion-cells which are forming out of the self-dividing parent-cell.

connection makes the evolution of ability to adaptation of environment possible. It is the special connection which enables the radio-active character-power within, to see its own without, its

Illustration 74 shows the two new scion-cells after complete division and after the formation of a new seed-string in each. This seed-string is apparently put together by the reunion of the old parts, but in reality it is a new body to the same old character of seed-energy.

ILLUSTRATION 76.

Shows a polar view of the egestively active centrosome during self-division, when this pole is called "aster," after the appearance of a flower.

Science does not see that these changes are brought about by the **universal and individual features and phases** which characterizes the process of digestion in all life.

I reproduce the illustrations of recognized original investigators, that there may be no doubt of their correctness. My own work with the microscope has mainly concerned pure yeast culture in business ways; therefore has my attention been drawn to physical nourishment, to the vitality in air, to the polar activity of digest-centers, etc. These matters biologists ignore; they look only for regularity in phenomenal changes, and not for the causes thereof. And therefore do my explanations of the standard biological illustrations differ from those given by the original investigators.

When the original investigators talk about causes, they lose all connection with facts; they lose their mental bearing by moving about the world of tangential ideas. For instance, when they attempt to explain the causes of **action at a distance,** as it occurs in cases of sperm-life being attracted by distant egg-life, they account for the evident facts by altogether untenable ideas.

Haeckel explains this attraction at a distance by hypothecating "a chemical function of sense which may be called smell." But the spermatozoon has no organs of smell and hence no such sensations; it has only digest-powers by which it lives, and out of which the organs of sense are evolved in a very slow process; and again chemistry has nothing whatever to do with the evolution of any special faculties.

Pfeffer attributes this same attraction to chemical affinity. Naegeli thinks electric currents are the causes of sexual attraction at a distance; and Prof. Zehnder thinks it is mechanical magnetism. If there is anything about this in sexual attraction that can be called magnetism, it is of a vital kind not known to science, but to writers and readers of novels or to society-buds.

Thus, every scientific biologist has his own ideas to explain the, to him, unknown fact; just as every sectarian theologian has his own opinions about God and Creation.

The thinkers of greatest renown usually furnish the absurdest ideas; for these ideas please the masses and find ready currency. For instance, Herbert Spencer has a strange faculty of arriving at absurd conclusion in his way of thinking and of vesting his ideas in learned words, which find wide acceptance and approval. Of hunger and satiety in growing life, he knows nothing, but by an imaginary balancing of non-existing units he explains the activities of the causes of all evolution.

If we did succeed in making the workings of radio-activity and the changeful polarity in ferment and digest-centers clear to ourselves, we would still be far from knowing the inner causes of evolution, productive of life, mind and thought.

environment; and thereby it enables all individual life-power to evolve its special organs and special abilities. This special connection is a factor in the universal **connection between self and not-self**—the second connection which enables all digest-centers and individual types of organic life to evolve and propagate their determining character-power.

Every individual character-power of life stands in a conscious double connection with the outer world; namely, that which it forms with its own periechon and that which it forms with the field of world-wide conscious energy.

Conscious energy is one of the **four fields** in the **periphora.** It permeates the atmosphere of life, as do the three other double-active constituents of the Periphora: Magneto-electric activity, light-heat activity, and solidifying or distributive activity of mat-

Digest-centers work with great regularity, exceptional variations notwithstanding. This regularity our mechanical thinkers attribute to mechanical causes, which, of course, is error. If we attribute this regularity to changefulness in polar activity of digest-centers, we do not entirely correct this error of mechanical physicists. We do but little more than shift the erroneous conception of causes from one fragmentary aspect to another. In looking to changeful polarity in digest-centers as active causes of phenomenal changes, we do take a more comprehensive view of the fact, but by no means an all-comprehensive view. The greater thinkers of antiquity have taken more comprehensive views of natural causation than those of changeful polarity in digest-centers; and we must learn to take them.

If we attempt to take a more comprehensive view we bring ourselves to face the questions: Is there a living, all-animating and to-order-setting power of creation, which may be called "God," or which should not be so called? Does the genuine God-consciousness represent any personality? Is this personality world-wide? Is it omniscent and omnipotent?

The answer to all these questinons depends, first of all, on the use and definition of words, for by means of words are we doing this work. Next, and principally, however, the answer should depend upon the facts in the case.

As far as the facts are concerned, there is a vitalizing conscious energy in the earthy atmosphere, which controls digestion, body and mind-building and procreation.

If our thinkers could use their powers of thought **after the manner of nature,** they would find this locally atmospheric vitality extends itself in a world-wide way, and that it is a world-wide cause of generation or evolution of life and a to-order-setting force in the workings of death. They would further find that this cause is a concentration of conscious energy which transcends the limits of any similar concentration in the human mind. Our little earth has not produced the highest effects of creation in this great world; and these highest effects have in natural ways reacted upon the world-wide field of conscious energy and left the results of their reaction in it. Hence the world-wide field of conscious energy has higher consciousness and character-power than is to be found in man. Do these facts constitute the existence of a God?

ter. Remember **periphora**, for the present, as solar-planetary interactivity, and keep all physical or chemical ideas out of the mind.

Every digest center surrounds itself with a field of conscious energy, by radio-active egestion. The minutest digest-center has such a field; so has every corpuscle and every organization of corpuscles; every organism. Remember radio-activity as a self-conscious energy, like the individual knowing- and doing-power in the human mind; and not like anything connected with radium, polonium, or any other metal.

The digest-center is always more or less conscious, and in the

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The answer depends on the thinking and speaking faculties of the individual mind. The mind may naturally conceive this all-animating cause of creation as God; or it may in special ways of thinking and speaking call it anything it pleases. Thinking does not change the fact, but it changes individual opinions; it makes creeds, and it leads to destructive wars for opinion's sake.

The greatest thinkers of the ages, who knew the facts, have never called the world-wide, all-to-order-setting, animating and organizing conscious energy "God," because this word is a term subject to any kind of limited or biased definition, and hence possibly very unlike the life-given power in the wide, wide world. Their objection has been to the use of limited words for the purpose of describing unlimited facts.

The mind which becomes habituated to deal in words becomes deluded by them and blinded to the fact, hence the men who talk loudest of God are usually apostates with regard to the all-life-giving and sustaining power. They are apt to become word-worshippers and opinionated fanatics. Any thinker who does not fully realize that words cannot embody facts, but can only point to facts, is a word-worshipper. All our historic thinkers are worshippers of words and more or less blinded to facts. The chemist thinks he can know life by his way of thinking, so does the mathematician and the theologian, the biologist, the psychologist and, in fact, everybody who thinks he can think, and yet does not know the double-connection between thought and language, on the one hand, and between thought and the facts of its origin, on the other. These connections carry us into the depth of original causes; and with it we will deal when considering Chinese cosmogony. It is not my present purpose to go deeply into ontology, nor to go far into phylogenic morphological or histological observation. I am here only considering the shortcomings in the present scientific knowledge of evolution, and I am endeavoring to show that there are knowable causes at work in the way of life, which science might consider, as they come within the reach of sensations. Science, of course, has no business to go beyond phenomenal changes into speculations about the actual causes of these changes.

The ideal representation of these causes falls properly into the realm of theology; and it calls for other than scientific ways and means of investigation. To guess at the invisible side of phenomenal changes, to talk about life's impulses, as does Bergsol, can lead to no reliable conclusions. Science cannot deal with radio-active, conscious energy, for that energy is not perceptible. But science should be able to know that phenomenal changes in and about life are produced by digestion, and it should notice the changeful polarity about the work of digest-centers. It should also be able to note the perceptible effects of the periechon; they are ever in evidence.

process of digestion it egests conscious energy to surround its own housing. This fact is what the Greeks knew as the **periechon** of the radio-active digest-center.

If there were no conscious character-power in the **periechon** there could be no adaptability of individual life to its environment.

The nucleus or core of all cell-life is a product of the axial intersection of the counter-cyclings of nutrition—the counter-cyclings in the body-making and the character-making power. The former axial power is vested in the so-called centrosome, which is nothing more than the axis of the east to west circling of nutrition. The latter, the character-making power, is vested in the so-called nucleolus, which represents the axis or central activity of the West to East circling of nutrition.

The centrosome and nucleolus should be considered rather as axial activity than as material things. The nucleus or core and the seed-strings are material things. They draw by digestion on the axial nexus of nutrition. The nucleus receives its nourishment mainly from the pre-digested matter; the seed-strings mainly from the vitality of the atmosphere—that is, the vital energy which penetrates the earthy atmosphere as a separate field of activity. The counter-cyclings of the all-nourishing fields about biaxial digest-centers, provides and distributes this nourishment. The words centrosome and nucleolus stand representative of both the two kinds of nourishment and the biaxiality of digest-centers.

Science pays no proper attention to the process of nourishment. Biological science represents the appearance of cell-life very nicely, but it does not take the process of digestion into consideration. It is this process which produces the appearance of cell-life.

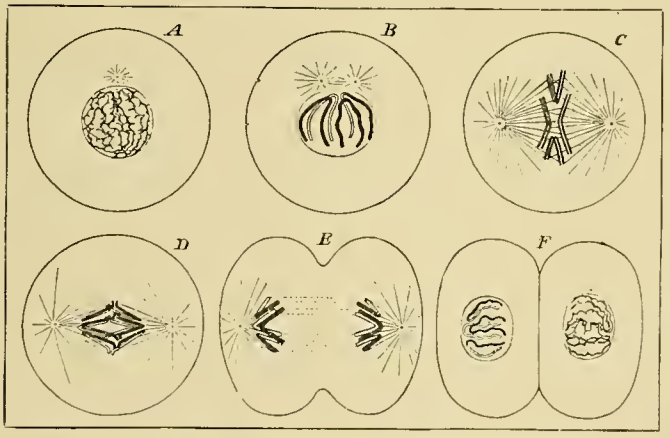

ILLUSTRATION 77

Showing the changeful polarity in digest-powers, which accompanies and in part causes self-division of cell-life.

A DIAGRAM SHOWING THE PROCEDURES IN SELF-DIVISION OF CELL-LIFE BY SIX STAGES OF CHANGEFUL DEVELOPMENT.

A, we may consider as an initial stage. The large circle indicates the spherical form of the cell. It consists of innumerable digest-centers, each of which has its own elementary centrosome and nucleolus, and therefore its own body and character-making power.

The inner circle indicates the community-nucleus, the outer poles of which are **sympheromenally**, ingestively active; while its inner poles are **diapherome-**

If there were no connections between the individual conscious self or digest-center with the conscious character-power in the universal not-self, there could be no self-division of digest-centers and no propagation of individual life or of species. (See explanation of magnet with consequent poles.)

Sixth: The evolution of all life in all its stages proceeds by digestion of nourishment. This digestion is never the same at two consecutive moments of time. It proceeds between the two extremes of life and the two extremes of death, and it reverses its procdures in a cyclic way, now making for organic life, now for seed-energy; now for this, now for that kind of sewage.

Seed-energy lives by means of a different kind of digestion from that of the organizing powers vested in cell-form. This dif-

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nally aetive, making for division of the seed-mass. The radiating point near the nucleus indicates the community-centrosome, just beginning its **diapheromenal**, egestive activity at its outer poles, while its inner poles are **sympheromenally** active, drawing on the nucleus.

The spherical body of the cell is, of course, surrouuded by the periphora, the life-nourishing atmosphere and protoplastic nourishment with which nucleus and centrosome interact ingestively and egestively. The periphora is composed of four double-active factors or eight constituents. Two of these factors have great penetrative powers, such as light, heat or electricity, for instance. They pass through the entire body of the cell and cause a certain cyclic rotation of the digestion-process from west to east.

The other two factors in the periphora have no special penetrative powers; they remain on the outside of the body of the cell like air or vapor for instance. They are only drawn into the digestion-process of the cell by ingestive polar activity of nucleus and centrosome and their digestion cycles from east to west. One of the four factors in the periphora is of world-wide extent. The other three factors are of solar-planetary origin and extent only. The egestions of nucleus and centrosome into the **periphora** produce the individual **periechon** surrounding the cell.

B, shows the second stage in the procedure toward self-division. The centrosome shows two poles greatly advancing in diapheromenal activity and spreading apart by the side of the nucleus. The seed-mass in the nucleus has divided itself into four strings, mainly by reason of its own polar activity. The inner poles of the seed-string act with utmost sympheromenal power, while the outer poles act with utmost diapheromenal power, quite on the principles explained under the heading of the magnets with consequent poles. These strings are made of two kinds of material; the one has mainly body-making powers; it is potential sympheromenal in character-power; the other has mainly character-making power; it is potential diapheromenal in character. The one is known as aehromatin; the other is known as chromatin. The seed-strings are called chronosomes.

Seed-string is a more descriptive term than chromosome; for it may be noted that some of the so-called aehromatin always goes with the chromatin in changeful, increasing and decreasing proportions.

nce in the digestion process is utterly ignored by evolutionists.

The radio-active digest-center assumes spherical form. The digestive workings counter-rotate within this form toward and away from its determining center. They move on the level of cyclic development, undergoing four digestive changes, the **protein, saccharine, alcoholic** or **spiritous** and the **fatty.** At the same time these workings move into Height and Depth of evolution, making for organic and seed-energy. In human digest-powers this movement in the way of evolution has six successive and re-

C, shows the third stage in the division procedure. The outer poles of the centrosome have spread themselves to each side of the seed-strings and are now at the height of their diapheromenal, egestive activity. The inner poles are, of course, at their height of sympheromenal activity, drawing most heavily on the remaining nucleus or seed-strings. The outer poles of the seed-strings are now at their height of ingestive, sympheromenal activity; while the inner poles of the seed-strings are egestively active, placing the strings in the peculiar position shown in the illustration.

D, shows the fourth stage of digestive self-division. The outer poles of the centrosome diminish their egestive activity; while the inner poles begin to act ingestively. The poles of the cell-strings change correspondingly. The outer poles become less ingestively active, and the inner poles more egestively so, pushing the seed-strings apart.

E, shows the fifth stage in digestive self-division. The outer poles of the centrosome should show very little egestive activity, much less than the illustration shows, for the inner poles of the centrosome are by this time acting with strong ingestive force, pulling the seed-strings apart. The polar aetivity of the spreading seed-strings acts with great egestive force at the inner poles (as shown by the dotted lines), and with corresponding ingestive force at the outer poles. The body of the cell as a consequenee begins to make two separate spheres.

F, shows the final stage of digestive self-division. The parent-cell has formed two scion-cells. The cell to the left hand still shows remnants of the old seed-string which are being used up in re-digestion by the digest-centers in the nucleus. The cell to the right hand shows the gradual reformation of the nucleus. The centrosome does not show because its outer-pole has become ingestively, sympheromenally active. This aetivity has done much toward giving the scion-cells their new spherical forms.

The spherical form of cells is the result of counter-cyeling in the axial activity of centrosome and nucleus. The sympheromenal workings of the nueleus and centrosome give the cell its circular form, just as they give it to planetary bodies and suns. Of that later.

Biaxiality in cell-life does not materially differ from biaxiality in the workings of death. All things are radio-active and all radio-aetivity is biaxial, and diapheromenally and sympheromenally aetive at the same time; that is to say, proceeding in straight lines and circles to carry apart or to earry together stuff about the digest-center.

The sympheromenal, ingestive cyelings of digestive work, when drawing on the finely rarified, invisible fields of substantial energy in the periphora, are not perceptible to the eye any more than are the workings of magnetie eurrent. Neither microscope nor telescope can serve to make these under-currents in either life or death visible. Knowable thy are, but not in the ways in which

digestive steps. These six steps have an individual and a universal hold on the outer world, thus making eight factors to be considered in their connection with the four above mentioned factors of development—the four products of elementary digestion.

All these factors of simultaneous development and evolution require simultaneous consideration, by thought, in order to produce an idea true to the changefulness of Fact. This is an exercise in objective and comprehensive thinking.

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physicists attempt to know them. They must be made known in order to understand the workings of cell-life or of any other form of existence.

I had intended to explain the subject under the workings of light by Illustr. 29, which shows the horizontal and perpendicular planes. Light works as does life. The sympheromenal activity of the inner poles of the seed-strings in C moves on a plane horizontal to the perpendicular plane of ultimate division.

Calling the new cells, formed in self-division "daughter-cells" is not proper. They are as often son-cells as daughter-cells, and this fact the Chinese noted and therefore described them as such. It should be noted, for it has its meaning in the building up of the organic body.

Primitive division is called Mitose, if the seed-string divides itself; and Amitose if it does not visibly do so. The latter is usually a case of retrogressive involution, or reduction of vital power. The words Karyokenesis and Karyostenosis have been used to point more directly to the inward causes of self-division.

It is always seed-energy of the diapheromenal or sympheromenal kind which causes the division, and these two kinds of seed-energy are always present in all cell-life. If they were not so present, there could be no Parthenogenesis. All elementary life is "arrhenothelous"; it has both the tendencies to masculinity and femininity within itself. Organic development converts these tendencies into actual capacities of sex. Gamogenesis is the result of this development.

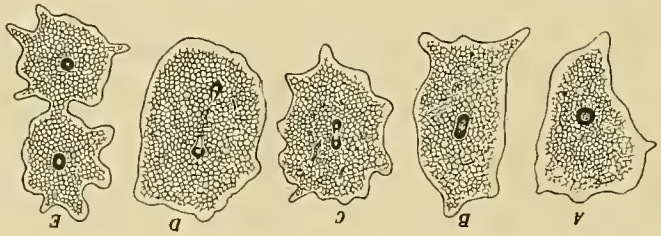

ILLUSTRATION 81
Digestive self-division in elementary life.

Illustration 81 shows digestive self-division of the most elementary kind, in which the changeful activity of centrosome and nucleolus does not show under the microscope. The character-building powers of the nucleolus is a minimum. The animal shown in the illustration is the amoeba crystalligera. Its body consists of innumerable digest-centers which contribute their mite to the community nucleus; but that nucleus could not grow if there was not an intermediate centrosome-power in it, nor could the cell divide itself without such a power.

A, B, C, D, E show the various stages of division, or as much of the apparent changes in this division as biologists have so far noticed. This reproductive self-division is known as "Agamogenesis," or cytogeneous propa-

The mind which is not capable of doing this work ought not to be proud of its thinking faculties. The prehistoric thinkers have done this work to perfection. They have even formulated it, and put it to practical use in seemingly wonderful ways.

gation without copulation. It is, of course, only a phase of the reversed digestion-process, and self-division is made possible only by the bisexual (arrhenotheleous) tendencies of all elementary life. The name, "polygastriea," was well chosen for the types of life in which it occurs. Multitudinous, undeveloped stomach-activity is about all there is to this animal life. The proplastic or cytoplastic mass in it is made up of communities of digest-centers; in fact, protoplasm is produced in the digestion-process by families of digest-centers.

ILLUSTRATION 82.

Digestive self-division and propagation of elementary life.

Illustration 82 shows a mass of protoplasm which is being eaten up by the amoeba proteus (after Scheel). The amoeba families have eaten out the inside of the protoplastic mass and rendered it worthless for further nourishment. They live in a circle about the wasted center (3) and they propagate themselves by digestive self-division, as shown at 1 and 2 in the illustration, where small cells or cell-communities appear as separating themselves more or less from the mass.

ILLUSTRATION 83.

Digestive self-division. Young life budding out of old life.

Illustration 83 shows the propagation by digestive self-division in protozoan life; the animal multiplies by budding. The specimen shown is the Acanthocystis aculeata, after Schaudinn. The centrosome is here plainly visibly in its egestive stage of outer activity in the body of the parent-cell, but it is not visible in the scion-cells, being there in sympheromenal, ingestive state of activity, or these little, young cell-communities being still too small, perhaps, to make the community-centrosome visible. At "1 and 1" the division is complete; at "2" the division is still in the making.

So far autotomy, i. e., the propagation of life by reversal of the digestion-process without evolution of special organic seed-energy, such as produces higher types of organic life by copulation.

It is only fair to presume that all prehistoric minds were not of the low stage of intellectual development ascribed to them by Darwinian thinkers.

ILLUSTRATION 84.
Elementary self-division of seed-energy.

Illustration 84 shows the self-division and propagation of life by four changes of seed-energy in the life of a slipper-animal (paramaecium,, after Hertwig. The polar changes in the reversal of the digestion-process may here be noted by the outer appearance of the seed-energy.

At "A" this energy assumes the horseshoe form like the seed-string at B in Illustr. 77; as if it was ingestively active at its terminal ends, and egestively in the center of its body so as to swell its size.

At "B" this egestive activity within the body seems to have increased to a maximum, giving the animal a spherical form. The polar-activity seems to be decidedly diapheromenal at its upper pole and sympheromenal at its lower pole.

At "c" the digestive activity appears as reversing itself—as pushing the outer poles apart. The seed-germ assumes a lengthy form. At "D" the seed-germ divides itself into two scions.

The fact that the whole process of self-division is nothing more than a reversal of the digestion-process can be demonstrated by the elementary working of inanimate forces.

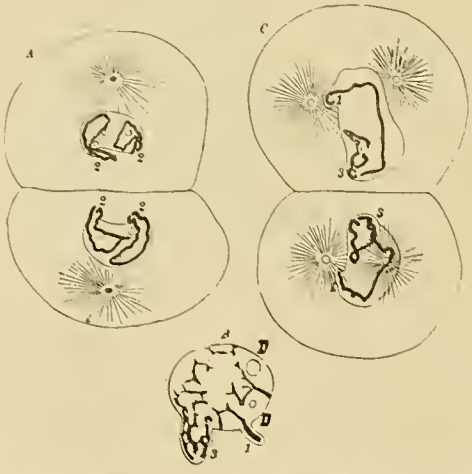

ILLUSTRATION 85.
Changes in the division of seed-energy.

Illustration 85 shows the embodiment and development of seed-energy in a specimen of the Ascaric megalocephala, a big-headed, intestinal horse-parasite, after Boveri.

"B" shows the embodied seed-energy, apparently at rest, but really sympheromenally active at its outer poles, D. D., that is, drawing for nourish-

Seventh: The process of digestion brings about phenomenal changes in the activity of cell-life, and these changes have not been fully noted by evolutionists.

The process of digestion produces cyclic changes in the activity of cell-life, such as the alternations in collective and distributive

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ment on its periechon and on the universal field of conscious energy, as does all seed at rest. While thus ingestively or sympheromenally active at its outer poles, it is diapheromenally active at the inner poles; it develops the seed-strings in the bioplastic mass, causes their division and pushes outward the ends; the end of one string at "1" and the ends of three strings at "3."

The number of seed-strings or parts into which the seed-energy divides itself differs widely in various animals. Each part is a family of digest-centers and carries with it the inherent character-powers of its species.

The seed-string, which by inner diapheromenal activity divides itself into a number of given parts at one stage of development in the parent-cell A, unites some remnants of the parts again in the cyclic changes of digest-activity within the scion-cells "C" when they begin their growth, and the re-united seed-strings go into renewed division in the scion-cells as the original seed-strings did in the parent-cell. At "C" is shown the beginning of re-division in the scion-cells.

The ends of the seed-strings are its poles; they indicate the character-value of the parts in the seed-strings. The number of ends in parting is shown by the figures printed in the illustration.

While these old and new parts are the same in character, they are not the same in substance. The several parts of the parental seed-string have at least in part been eaten up. The Centrosome-power has entered into that of the seed-string and furnished material for the seed-strings in the scion-cells. Re-digestion has changed part of the centrosome substance into that of the nucleus, nucleolus and seed-string. There has been an evolution of power from body-making to the making of mind, character and seed-energy. The re-uniting remnants of the parental seed-string have acted as germs in that evolution.

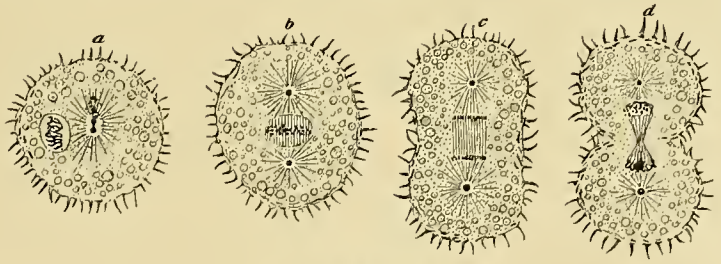


ILLUSTRATION 86.

Showing the changeful workings of bipolarity in seed-energy.

Illustration 86 may help to make clear the workings of digest-changes indicated in the above diagram, Illustr. 77. It shows a microscopic representation of cytogenic self-division of the specimen of Acanthocystis, after Schaudinn. The illustration shows the body of the seed as being composed of innumerable digest-centers or cell-communities. The rising and receding changefulness of the egestive (diapheromenal) activity at the outer poles of the centrosome is not fairly represented. The radiations shown are too much

activity of nucleolus and centrosome, especially notable during self-division of the cell. These alternations characterize all digest-centers. They are brought about by periodic ingestion and egestion of substance and matter in the interaction and counteraction

alike; they vary regularly with the advancing proeedures. Boalogists do not know the importance of these changes. Otherwise the microscopic illustrations correspond fully to the above diagram and to the description given in Illustration 77.

During the parting and meeting of seed-energy, vested in the parts of the seed-string, a substantial change takes place in the special character-powers—a substantial renewal of these powers by digestion.

When the seed-string acts diapheromenally within, the centrosome aets sympheromenally upon it—it draws on it—it lives on part of it. When the seed-string acts sympheromenally within, then the centrosome aets diapheromenally upon it—it nourishes it—gives it bodily (achromatic) nourishment. What remains finally of the old seed-string in the newly forming nueleus of the scion cell is only a redigestive germ.

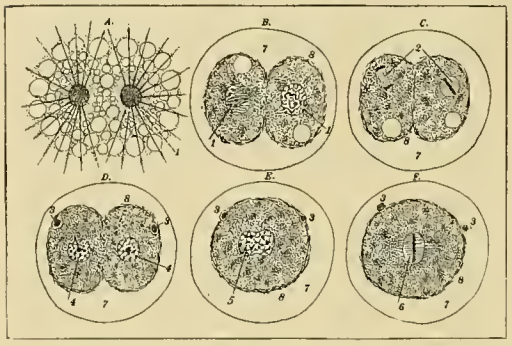


ILLUSTRATION 84.
Isogamic Propagation.

Illustration 84 shows a sun-animacule, Actinophrys sol, after Schaudinn. The propagation in this case is apparently the reverse of self-division, yet is it a digestive-propagation, brought about by promptings of outer sense instead of usually by inner seed-energy of one kind or the other. This kind of propagation is known as **isogamy**; i. e., like marrying like. The animal whieh usually propagates itself by self-division falls at times in the viee of uniting itself to a like animal by eopulation. Two animals come together as shown in the illustration. They eat into each other and form one animal body which eventually propagates itself again in the regular way by inner digestive self-division.

A, B, C, D, E, F show six stages of isogamic development, which finally in F makes again for regular self-division.

In "A" the two animals begin to unite. In "B" they surround themselves in the digestive way with a common protoplastic body (7) and an inner housing (8). "1" and "1" show the beginning of changes taking place in the two nuclei, the one begins to go into diapheromenal activity; the other in sympheromenal activity. In "C" these two kinds of activity show the parting and the meeting of the seed-strings (2). In "D" appear two little sperm-cells "3," and the seed-eores "4" appear at rest, that is, sympheromenally, ingestively, invisibly active at the outer poles.

In "E" the seed-cores or nuclei unite, forming one nucleus (5) only.

In "F" that nucleus begins to make for regular self-division.

between digest-centers and periphora, the common source of nourishment.

All digest-centers live by ingestion and egestion of imponderable substance and ponderable matter. All draw on the periphora for nourishment; all contribute to its healthful preservation. These features of the digestion process are not known to modern learning; yet in them are to be found the active causes of self-division, and, in fact, of all kinds of propagation in all types of life.

Self-division in cell-life or seed energy is always of two kinds, mental in the nucleolus, physical in the centrosome. It is always

THE EVOLUTION OF SPECIAL SEED-ENERGY.

Elementary life has, of course, very little of that character-power, which indicates tendencies of consciousness and makes for the evolution of mental capacities in the higher animals. Elementary life subsists and grows mainly by assimilation of physical nourishment. Its digest-powers reach a limit, and it arrives at a mature stage of growth when its appetite for material food gives way to the rising "holy hunger" of its character power; that is to say, the hunger for highly rarefied substantial food which can nourish and sustain the evolving consciousness.

"Holy hunger" draws more largely on the two fields of substantial and conscious energy in the periphors, than on the material fields.

Physical hunger stimulates the search after material nourishment and the assimilation of this mainly promotes the development of physical powers in primitive life, as in child-life. Holy hunger reverses this development, it promotes mainly the growth of mental tendencies and character, and it starts the evolution of seed-energy.

The evolution of special seed-energy become an independent line of growth in the organic body of the primitive animal. Special seed-cells grow more or less independently of the bodily cells.

The organic types of life evolve special cell-communities of re-digestive character-power for the production of special seed-energy. This special evolution in the organic body begins to show itself at low stages of organic life. It is effected by special reversal in re-digestion of food, reanimated and prepared by lower digest-centers in the organism. The higher re-digestive character-cells, which make for the building up of special sexual life, live preferentially on the periechon and on the all-penetrating substance of the universal field of conscious energy which is one of the four factors in the periphora. Inhaling does more of this work than feeding the stomach. The re-digestion, by inhaling sustained, produces more and more mental character-power out of the less conscious nourishment, consumed. Of this nourishment less and less is used as the re-digesting seed-cells continue their evolution of reproductive powers, in the regular way of feeding to satiety and self-division for a number of times within the organism in which they grow. The digestive workings of the nucleus in the lower digest-centers furnish this lessening nourishment to the digestive activity of the centrosome in the re-digestive seed-energy-cells; while the nucleolus of these latter cells draws on the periechon and on the highest factor in the periphora, the universally conscious energy, for the principal nourishment of the sexual cell-community.

There is always an up and down counter-procedure to all digestive work, down from conscious energy and up from dead matter to be reanimated by

prompted by the alterations in **satiety and need, or hunger,** of the double-active centrosome and the double-active nucleolus. The need of the one is the satiety of the other, alternatingly, from side to side. The predominance of satiety on one side of the nucleolus and the need of the centrosome on the other makes for self-division and propagation of mental or character-power; the diagonally reverse preponderance makes for physical self-division in propaga-

digestion. The unification of the counter-proceeding matter and consciously energetic substance produces the character of the digest-center and leads it up or down the step of evolution and involution, no matter whether the digest-centers be engaged in organic body-building or in evolution and involution of seed-eergy.

At all times are the lower digest-centers potentially bisexual (arrhenothelous). For one moment they work sympheromenally to do body-building, the next moment they work diapheromenally to do character-building, mind-making or seed-energy-work. The seed-energy has its bodily housings. As the digest-centers advance by re-digestive work and repeated self-division in either the character up-building or seed-energy-making way, so do they gradually diminish body-building, and so does the originally potential bisexuality become an actual one-sided sexual capacity. The growing seed-cell-comunity becomes either masculine or feminine. Either the diapheromenal or the sympheromenal counter-tendencis become a permanntly dominant capacity, and the seed-cell accordingly produces the masculine sperm or the feminine egg, and thus it starts the propagation of the masculine or feminine organism and individuality. These individualities do not propagate themselves, thereafter by digestive self-division (autotomy), but by either conjucation or copulation of their seed-energy, excepting, however, the parthenogenic propagation which retrogressively enters as a variation, sometimes into the lower kinds of sexual propagation, as a reproducing method of organic life.

The sexual development of feminine seed-energy biologists designate as Oogenesis, and that of the masculine gender as spermatogenesis.

The first products in this development are known as spermatogonium and oogonium, especially in vegetable life. The developed seed-energy is called spermatocyte or oocyte.

In Illustration 91, A and B show the polar workings of re-digestion in the spermatogonium. C, D, E, F, G and H show the advancing work and self-division in the spermatocyte. The whole production of special seed-energy is a special reversal of the re-digestion process, it reverses the organic re-digestion process. Instead of promoting the growth of organic diversity, it promotes the concentration of character-power.

The digestion-process as a whole is, of course, only a method of drawing, individualizing and concentrating consciousness and vital energy out of material food and out of the vitality of the atmosphere—the vitality, once known as periphora. Oxygen in the air is not anything like this vitality. Oxygen is a chemical term and a chemical distinction of lifeless stuff; it has nothing to do with the workings of conscious energy.

While the digestion-process is only a method of extracting conscious energy, it is a double-active and reversible method, and it works on two kinds of double-active stuff, diapheromenal and sympheromenal matter and substance. The latter is easily knitted together into ponderable matter—bodily

tion of life. These two kinds of self-division are not simultaneous, but alternating.

Digestion, body- and character-making self-division, propagation, organization of cell-life, are all phases in the cyclic counter-procedures of the same double-active powers of life. All these phases are the work of capacities evolved out of the tendencies to

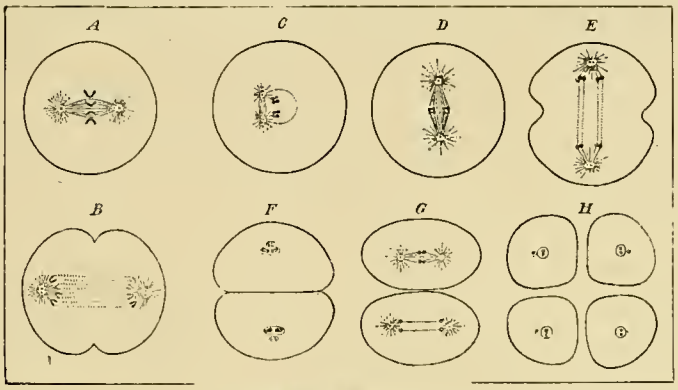


ILLUSTRATION 91.

tissue and its senses. The lower work in digestion by centrosomes does so knit it. The former, the diapheromenal, on the contrary is easily rarefied but not easily knitted or confined. The finer work of re-digestion by the nucleolus, however, does this knitting and confining; and it does it in two reversed ways of digestion. In the one way it makes organic energy, in the other it makes seed-energy

The breathing apparatus of life, mainly supplies the raw-material for the workings of the nucleolus; while the intestinal digestion supplies the raw-material for the upward workings of the centrosome.

The holy or sexual hunger draws mainly on the vitality of the atmosphere —the periphora—therefore has it often much to do with the change of season—therefore, also, do lovers lose their appetite for physical nourishment.

In order to understand the causes active in life and death, we must bring ourselves to realize that there is vitality in the air which all life needs, which permeates all life and which all life inhales and again exhales in modified character—in character, more vitally energetic in some exhalations and less vitally energetic in others—in sewage.

There is not enough air in the water at the ocean-depth to sustain life, but the field of conscious energy does penetrate the ocean water to any depth, and it does sustain life where there is no oxygen.

All life is organic, and it lives by digest-powers, which even in its minutest parts are radio-active and consciously energetic. When conscious energy ceases to control digestion, then the process of life metamorphoses into the process of death; digestion metamorphoses into fermentation; the organic workings of life come to an end; the parts in any organism, which cease to organically digest nourishment, die; they peal off the organism as does the dead bark off the tree.

There is nothing absolute in the world. The whole changeful process of existence is a one of metaboling predominance and subservience in counter-active forces and powers, in the diapheromenal sympheromenal stuff of existence.

consciousness in radio-activity which the ancient Chinese knew as TI.

All life originates in the same cause; it is sustained and propagated by the same cause.

It behooves us to study the difference between organically **reciprocal procedures** in the way of life, and the non-organic **relative procedures** in the way of death; and we need to realize that both kind of procedures at all times counter-cycle to **meet and part** in the one vitalizing **point** of the digest-center.

The unconscious procedures of death support the conscious procedures of life. The conscious procedures evolve specially organic powers of life in the ways of digestion, and they sustain these powers in their organic oneness of individual life. They sustain all life by alternating assimilation and elimination of two kinds of nourishment, in the up and down, the right and left, the roundabout counter-cyclings of changeful polarity.

A look into the lifeless undercurrents of existence will help to make known the workings of living causes.

There is no life without digest-powers. There is no digest-power without consciously radio-active energy; and that energy works in individual as in universal ways, to set to order, to animate, to organize the stuff of existence. It works at all times in either life or death by diapheromenal or symphero-menal counter-procedures. These procedures we must know in order to understand natural causation, and we must know the difference between the organic and non-organic workings in these counter-procedures in order to determine the difference between life-sustaining powers and death-dealing forces.

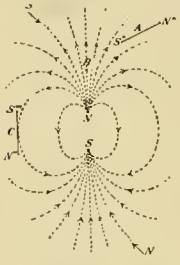


Illustration 78. Prof. Zehnder's diagram of polar activity in imaginary molecules may help us to get some idea of the movements of vital energy in the periphora. The professor, in his work, "**Die Entstehung des Lebens aus mechanischen Grundlagen entwickelt,**" (Origin of Life (considered as) out of Mechanical Causes Evolved), aims to elucidate the polar movements of magnetic currents by this diagram. In doing this, he, of course, takes only an analytic, abstract view of nature's work. All he aims to show is that magnetic currents enter at the south pole of a given piece of matter (molecule) and escape at the north pole; that the same currents keep circling about the molecule (which is not true) and will cause other molecules to place themselves in give n position (which these currents might do if they controlled the other molecules). All this may not be of special interest to us; but the south and north pole activity, illustrated, gives us a first hold on the facts to be made known. Magnetic currents move in and out at these poles; but there is an electric counter-movement in the opposite direction to all magnetic currents. And then there is an axis of west to east circling, which we cannot overlook. Besides, there is a circling movement of matter (the body of the earth and its atmosphere) from east to west. All of these circlings have something to do with the periphora, which nourishes life and with the process of digestion, here under our consideration.

We must not allow our attention to be side-tracked by this or the following diagrams of abstract aspects. We must remember that the above dia gram should show two intersecting axes, with variable angles of intersection, in order to represent radio-activity of any kind in life or death. (See Illustr. 37.)

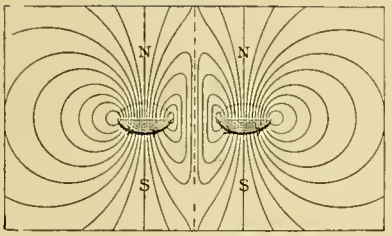
Death is a bi-product of life, or rather its counterpart. All the workings of life and death originate in the same active cause; namely, in the tendencies to consciousness, which characterize the radio-activity of TI, as explained in Chinese cosmogony.

Radio-activity always divides the stuff of existence equally between life and death. The world never was all life, and it never was all death. It was always half of the one and half of the other. Death never was anything else but the sewerage of life.

Eighth: Digestion is always a process of simultaneous assimilation and elimination of four kinds of nourishment. Two of these nourish mental powers and two others nourish physical powers. The difference between mental and physical nourishment our evolutionists have not even begun to consider.

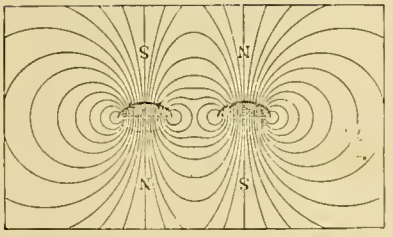
Ninth: Evolution does not end in the process of producing the animal or human species. It extends itself in the process of

ILLUSTRATION 79.



Dr. Drescher, in his work, "**Werden, Sein, Vergehen** (Coming into Existence, Being in it, Passing Away), has made two diagrams by which he aims to explain electric currents. These diagrams supply some of the short-comings of that shown in Illustr. 78. The Doctor is a student of Herakleitos, and he has impressed upon his mind the duality of elementary forces (diapheromena sympheromena). Therefore he doubles up on the idea of currents. In Illustr. 79 he shows these currents as running parallel to each other and as circling about two foci, to unite in one or the other alternatingly.

ILLUSTRATION 80.



In Illustration 80 he assumes the currents as running in opposite directions and as spiralling toward and through a focus. This diagram comes still nearer the fact of radio-activity than that of Illustr. 79, as far as lifeless electro-magnetic currents are concerned.

The school of Ephesus, which dealt with the inwardness of nature's activity much as did the learning of East Asia, did elucidate atomic (radio-active) workings by the focalizing movements of screws.

In order to similarly elucidate the workings of atomic radio-activity in life or death by movements of screws, let us place four wood-screws in a perpendicular plane and in the form of a St. Andrew's cross, with the points all meeting at the center. Then let us assume that the two upper screws turn in opposite direction to each other, and that the lower screws turn similarly, but in direction opposed to the upper. We have, thus, four spiral movements toward and away from one center in the bodies of the screws. These screws, however, move in some medium of matter, and in this medium they cause a reverse movement.

thinking and speaking, and also in the process of civilization. These extensions are misrepresented by all evolutionists. There is scarcely a glimmer of truth in any of the ideas advanced to describe mental or social evolution. The facts are usually the reverse of the statements made by scientific evolutionists.

To these enumerated shortcomings in the present stage of the theory of evolution may have to be added a certain contribution to

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We have now eight simultaneous movements centered in one point—the crucial point, speaking mythically. These eight simultaneous movements, practically illustrate the workings of light and heat and of electromagnetic currents. The movements of life follow those of nature's non-vital activity. Radio-activity controls both. Life focalizes vital energy in digest-centers just as heat-light focalizes the substantial undercurrents of nature's activity in non-vital ferment-centers. (See illustrations to polarized light, in appendix.)

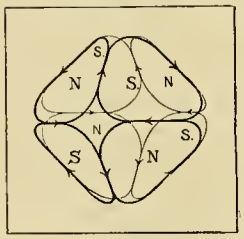
Each of the eight simultaneous screw-movements just spoken of, should be considered as a compound of diapheromenal and sympheromenal energy. The former energy always tends to move in straight lines from and to a center, while the latter always tends to move in circles about this center. The inseparable union of both produces the spiral movements. When these eight movements are considered as eminating from and as depending on one and the same source, or their focus, and as connected with the great counter-movements in the environing substance and matter, then we may see the reason why they produce spherical effects, as far as the pressure of environment permits the radio-active energy, working within, to impart spherical form without.

The counter-cycling about a radio-active focus or axis in the material and substantial fields in the periphora (the fields in which radio-active character-powers are also active) may possibly be brought to mind by thinking of the figure, known as the "grand right and left" in the quadrille, in which four males and four females counter-march in a circle, while changing hands. Ancient art did produce figures which suggested this movement, and probably for this purpose. (See the double-active, counter-cycling cross of ancient North America in Illustr. 10. It represents the radio-active digest-center.)

All figurative representations are, of course, only fragmentary and abstract aspects of the changefulness in and about radio-activity. All are only means to draw attention of thought to the facts—toward a knowledge of which every mind must work for itself.

Dr. Drescher, in an attempt to explain the formation of an eight-sided crystal produced a diagram shown in Illustration 87, which by some change of explanation may serve us to present the idea of counter-cycling about and within radio-activity. He suggested to think of eight spheres (misnamed atom-circles) placed together in accordance with the sides of an octahedron, and to think of the axes of these spheres with alternating polarity, S and N, standing radially to one center or perpendicular to the sides of the octahedron. If these axes would control the duality of "matter and energy" (as he puts it), he asserts they would produce the octahedron. It does not matter to us whether this would happen or not; but the design is well conceived for our purpose. It shows four rounded bodies in dark lines, two of them large, two others small to

ILLUSTR. 87.



the field of conscious energy in death, if antiquity had a correct idea of division of conscious energy in dying.

Death is never a complete separation of the powers of life from the forces of death; it is never more than a partial separation of these two factors in nature's mobility and motivity. It is always a matter of self-division in and between the body-making and the character-making powers, just as is the propagative self-division. It differs from this division only in as much as it breaks up the con-

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the view. And it further shows four similar bodies in thinner lines; all massed together about one center. If we assume that these eight bodies continuously change in character as they are presented differently to the eye, the larger ones in the smaller and the ones shown in dark lines into those shown in thinner lines, we may get an idea of that changeful predominance and subservience in diapheromenal and sympheromenal character-powers which all radio-activity in ferment- and digest-centers has in common. The study of the mobility which this diagram suggests may make some features of radio-active changefulness intelligible at a glance, while a volume of words might never do it.

Illustration 91 shows the evolution of seed-energy in an elementary type of life by repeated stilling of the holy hunger (chresmosyne), for nourishment of higher and higher consciously energetic substance from periechon and periphora. The stilling of this holy hunger in both the spermatocyte and oocyte leads up repeatedly to stages of satiety (Koros), and to consequent repetition of self-division. The process of evolving special seed-energy in either egg or sperm may be divided into three stages.

First: Repeated self-division to produce the special seed-cell.

Second: Their growth to maturity, the apparent outer rest and inner digestion and ripening.

Third: A repeated division for extra concentration of seed-energy to produce the final power of egg or sperm of animal life. In this final reduction process, the strongest parts of seed-energy unite, discarding the weaker, and re-absorbing them, directly or indirectly by redigestion. For instance, of four eggs sometimes produced in the final division, only one ripens at the expense of the other three.

The process of evolving seed-energy, it must be remembered, takes place within the bioplastic atmosphere (periphora) into which all life egests the surplus products of its digest-centers; that is, conscious energy of its own special kind, especially notable in the odor of flowering plants or mating animals. Upon these egestions, the evolving seed-energy draws by ingestion to still its holy hunger in part, and it also draws on the world-wide field of conscious energy which penetrates all life. The reproductive powers are not nourished alone from the side of material digestion. Rising toward development of conscious energy, they are mainly nourished in the downward way from the side of conscious energy formerly evolved and egested by digest-centers and forming not only a periechon about each organism, but also the universal field of the all-penetrating conscious energy. The penetrative power of this energy is far greater than that of either magnetism or electricity. It is a vitally digested energy, while that of electro-magnetism is the product of the non-vital fermentation-process—the sewage-redeeming process. The energy produced by vital digestion gives the earthy atmosphere its character of life

scious double-connection between the individual living self and the not-self, instead of continuing this connection by cyclic alternations in the process of digestion and propagation, as they occur in the counter-procedures of life, as for instance in sleeping and waking, in mind-making and in body-making, in going toward the development of special organic powers or toward that of character-power and seed-energy.

Death and sleep, in their inner causation, differ only in as much

and its powers to nourish life and sustain health. It is the **Manna**, mythically speaking, which may be ingested from the field of conscious energy.

The glands, in general, at least all those that secrete and excrete, are communities or rather states of re-digestive cells. All produce re-digestive germs to take part in the alimentation of special powers in the bodily economy. These germs enter into the movements of lymph and blood, more or less directly, to do redigestive work, and to develop higher special character-power in the reanimated nourishment for the body and mind, as it moves up from the intestinal organs or down from the lungs. While some of the glands work directly in the way of preparing nourishment to sustain bodily, mental, intellectual, sexual or other character-powers in the organic economy; other glands like the kidneys work in the ways of sewage-redemption. They redigest wasted tissue or partly digested nourishment eliminated here and there.

The vascular and other glands which apparently do no redigestive work are nevertheless doing it invisibly, they draw on the field of conscious energy. They do specially mental or sexual work.

Wherever there is elimination, there is also assimilation. Digest-germs animate the dead food, and they reanimate part of the dying waste, saving it or redeeming part of it and preparing it to do lower, primitive work in the organic body. There is a continuous counter-procedure of meeting and parting, of division and re-division in the cyclic ways of life's digestive work. There is a continuously changeful going into life's way and going out of it. There is something like purgatorial work done in the partial redemption of sewage within the organic body. Life in its minutest parts, as in its organic complexities is a process of digestion and re-digestion. The work of life, mind and intellect is digestive work. Every part of the organic body is more or less of a digestive organ; digestion sustains all functional activity.

The undetermined use of many glands is to be sought and found in digestive and redigestive functions. Not only nourishment taken into the body, but also wasted tissue, is being constantly redigested. Sewage is being worked over and over before it is finally eliminated from the organic body.

The digestive self-division in the protozoan types and the specially germinal self-division in the metazoan and higher types always eliminates part of the community centrosome and nucleus or seed-substance as wasted tissue, and that tissue is worked over and over re-digestively in the simple cell-community, just as it is worked over in the highly organic animal's body.

In almost all cases, if not in all, not only part of the nucleus, but also part of the very seed-string is absorbed, eaten up by lower digest-centers in the body of the cell-community during process of self-division and cell-propagation.

The order of Life tolerates nothing idle or useless in the organic body. There may be warts, cancers or other parasitic growth, but these are works of vital disorder. No work of life is immaculate.

as the former breaks up the conscious double connection between self and not-self, while the latter continues it by periodic and cyclic alternations.

What remains of the Darwinian theory and may be considered as its percentage of truth is the observation that all organic life is a product of the association of individual cells, proceeding by self-division of one or two kinds, known as mitosis or amitosis, karyokinesis or karyostenosis. These two kinds of self-division, however, are only known in their outward appearance. Their inward workings are not properly understood or described by evolutionists. The one kind of self-division should be described as that of

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That which is not a useful factor in the cell-community does not remain. Many biologists think otherwise. They hold that the same seed-string divides itself in parts (chromosomes) during self-division re-unites the same parts in the daughter-cells, this reunion, however, is only one of the same digest-powers and not of the same material.

The argument advanced by these biologists asserts that all higher organic life draws on the primitive font of its special seed-energy and not on any primitive organs. This assertion is, of course, perfectly correct but the assumption connected with the argument, that any part in any primitive organs of cell-life can remain unchanged and useless, is incorrect. There is no interruption in the process of life. Nothing can continue to live if it discontinues to digest—to assimilate and eliminate substance, and all parts of the organic body work reciprocally; they give and they receive. Change is the invariable order in all existence.

Even the things which are dead continue to undergo changes by assimilating and eliminating substance from the all-penetrating undercurrents. That which is dead undergoes slow or rapid changes in the universal fermentation process—be these changes too rapid for the eye to catch, or too slow for humanity to notice.

The salivary glands produce redigestive corpuscles which work in the saliva and prepare it for its work. The sebacious glands produce redigesters; they produce the oily and fatty matter which they contain. So do the odoriferous glands. Follieles are the homes of redigesters.

The ductless glands thyroid, thymus, spleen and adrenal capsule, may not be in the special business of generating redigesters, but redigestive work is done in them; and this could not be done if these glands did not regenerate their own powers. They are of porous structure, we might say. Penetration by vital energy causes the redigestive work to be done in them; as also in the pineal and pituitary glands. This work usually converts physically energetic substance into mental and thinking powers, or it serves to reanimate devitalized substance.

The suprarenal capsule re-vitalizes the sewage, redeemed by the redigestive work of the kidneys.

The spleen puts the joy of vitality into the circulating blood.

The thyroid gland does reanimating in the catabolism, and the thymus does it in the anabolism.

All these glands ingest vitality from the atmosphere, or periphora rather. They digest vitalizing energy—not matter.

Oxygen is not vitalizing energy. It is devitalized matter. Some life can

double-active character, which retains its duality, division notwithstanding. The other kind should be described as that of inner and outer organic faculties, making for special development. One division goes from outwardness of body toward inwardness of seed-energy; the other goes from seed-energy to body-making.

In order to build a full knowledge of the world-process upon the twelve per cent of truth contained in the modern theory of evolution, we would have to add not only over eighty per cent of knowledge, but we would also have to modify and correct the twelve per cent of modern knowledge. We would have to elucidate **how and why** the way of changeful digestion sustains all evolution at all times, how and why it alternates; and we would also have to show how and why the two kinds of self-division alternate. This again would make evolution the same lengthy study as that of

exist without it, other life gets very little of it; but no life can exist without the all-penetrating, vitalizing energy. Some of these vitalizing states of re-digestive functionaries in the human body are called **vestigial,** simply because their functions remain undetermined.

The glandular work in the organic system begins with the light-bodies (leucocytes), which are re-digesters of the free-lance kind, and not particularly scavengers. They work in the lymph and blood, if not also about the watery life-fluid in the vacuoles of cell-life.

ILLUSTRATION 88.

The corpuscles in lymph and blood are functional re-digesters of nourishment which has been taken into the organic body, such as that of the frog, in this case. Their redigestive workings evolve germ-powers for the growth of organic constituents and to prepare food for these constituents. Corpuscles always work by ingesting and egesting conscious energy. Their digestion work connects them with the all-penetrating field of conscious energy. The smallest corpuscle is an organism, itself; it is a family of digest-centers, and it has an individual character-power. It works to generate redigestive germ-powers, to build up the greater organism in which it lives.

Illustration 88 shows a light-body or leucocyte from the body of a frog, doing re-digestive work of the vitalizing kind. It makes its way by pseudopodial means. The illustration is from Metschnikoff, who believes the food enclosed in the leucocyte's body is a bacterium. If this leucocyte is a soldier in the bodily economy, it does its work, as does all life, by digestion, and it is a maker of nervine.

The seed-cell, making for development of masculine energy, does not draw for material or physical nourishment on its environment—the body in which

the world-process in the foregoing pages. We will have to content ourselves with the additional explanation of the illustrations produced by modern evolutionists, and hereafter inserted.

Before leaving the modern ideas of evolution, it may be well to take another cursory glance at the cyclic changes of life and death in the process of nature to further prepare the mind for the elucidation of Chinese cosmogony.

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it ripens. It lives on its own substance and by ingesting conscious energy from its periechon and from the vitality in the atmosphere. In its development toward sperm-energy, the seed-cell merely concentrates conscious energy by outward ingestion and by inward digestion.

The breathing apparatus supplies whatever nourishment the ripening seed-cell draws from without.

Overfeeding the body in which the seed-cell develops itself into sperm-energy diminishes the propagative powers. The energy does not ripen or concentrate itself in the overfed body. The vital energy in the air, inhaled, is required for the digestion of surplus food.

Gluttony is an American vice among well-to-do men; hence their propagative powers are lessened and often even impaired. Luckily the feminine powers which work in opposite ways, make up for masculine depletion, of the sort referred to, in a way. Weak masculinity will propagate; weak femininity will not.

It is of great importance to humanity to determine and recognize these functions. This gluttonous nation does not digest its food properly. The stomach and physical digest-organs can do no more work than the redigesters of vital energy, the lungs, the tracheal follicles and ductless glands can supply with vital energy. Digestion means re-animation and re-vitalizing. The food, after being physically reanimated in the intestinal digest-organs, needs more and more re-vitalizing in the digestive anabolings and catabolings (so-called anabolism and catabolism), in order to sustain the mental and intellectual powers in highly organic animal and human life.

Beef-eating does not necessarily impart the intellectual powers of a college professor. The professor develops and sustains his thinking powers by means of the glandular organs, which draw on the atmospheric vitality and make the redigestive work possible in his vital economy. These facts were known to antiquity, but they are not known to modern science. They are still somewhat known in China. But imagine an American student of anatomy going to China to study his science!

If the vitalizing power in the atmosphere, or rather periphora, and the undetermined functions of glands were understood, we would soon know the reason why this physically overfed nation develops great powers of special sense, but no particularly notable mind-powers.

Our scientists do not understand the process of digestion. They overrate the physical work of digest-organs and they underrate the mental functions of glands and follicles.

In pure yeast culture we may see how special ferment-germs convert most any old thing, by spirituous digestion, into pure food-products, and how these germs must be fed to maturity and supplied with vitalized air for reproductive purposes, in order to achieve the desired results.

Chemistry has nothing to do with this process. It only interferes with its

NATURE'S METHOD, OR THE "HOW" OF NATURE'S PROCEDURE.

All ponderable matter is produced by the knittings of radio-active centers. This knitting proceeds by combinations of lineal and circular movements which characterize all of nature's mobility and motivity. All things ponderable and imponderable, all matter, all substance, all mental and physical powers of life, all collective and distributive forces of death, have their rooting in radio-activ-

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proper understanding. Light and warmth have much to do with the vitalizing of air.

If science could divest itself of the foolish habit of applying chemistry to life, civilization would do better.

If the overfed people would go to sparsely settled country where midnight suppers are not in fashion, where physicians do not indiscriminately recommend cold showers to put the sudoriparous glands out of action, where the climate permits sleeping out of doors, they would experience a change in their vitality and mentality.

Seed-energy develops itself by reversal of polar-activity in the process of nutrition. It draws on the opposite poles of the axial activity. Science ignores the nutrition of seed-energy.

Science does not consider this process of self-division in its dependence upon digestive activity.

ILLUSTRATION 89.

Illustration 89 shows the largely magnified nucleus of the salamandra maculata, after Hermann. The egestive activity of the nucleolus, or seed-core, is here plainly visible at one pole. The egestive activity of the other pole is that of the body-making centrosome. These egestions feed the minor digest-centers in the nucleus and also the seed-string lying above in form of a dark knot.

The whole mass of the nucleus must be considered as being penetrated by two counter cycling fields of vital energy, one moving from west to east about the axis of the nucléolus, the other moving from east to west about the axis of the centrosome. These axes, of course, are not visible, as are the axes of a wagon. The circling movements in the periphora are like magnetic currents about a magnetic axis. The axis is only the center of the moving currents. The currents of vital energy are not any more visible than are magnetic currents; yet the former currents cause organic growth about the axis of their movements, just as the latter currents cause accumulations about their axial centers.

The seed-string lives almost exclusively on the invisible currents of vital energy and hence neither the ingestive nor egestive activity at its ends can be seen.

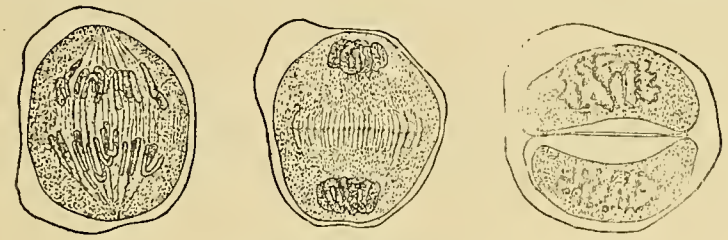
Some biologists do not like the term "nucleolus," but then they use less suitable terms than it is. We should not think of ponderable matter or chemicals as much as of movements of vital energy when we use the terms nucleolus or centrosome.

ity; all forms of existing things are products of combination in lineal and circular procedures. The cross in the circle is the old time symbol of them all.

All digest-centers in their life and death-making activity do four kinds of work.

First: They draw on two kinds of dead matter for immediate revival to life and eventual return to death in the cyclic counter-procedures of all of nature's activity.

Second: They egest two kinds of conscious substance from the to-order-setting power active within them into the field of conscious energy about them.



A B C

ILLUSTRATION 97.

Three stages of self-division in the seed-energy of the Fritillaria persica.

Illustration 97 presents the changeful polar activity in the concentrative division of a seed-cell, after Straasburger. This illustration shows a cell which divides its seed-string into a great number of seedling parts, but not in any arbitrary number, for each part represents a special character-power in the construction of the organic body.

In A the seed-string, overcharged with diapheromenal energy, parts, and its seedling-parts assume the horseshoe bent.

In B the seedlings become sympheromenally digestive to form two new nuclei; while the old nucleus, being diapheromenally active, makes for self-division.

In C two new nuclei are growing, in the way of concentrating and maturing renewed seed-energy, by alternative redigestion, which builds up character in the seed-string and gives it bodily housing.

REDUCTIVE SELF-DIVISION OF THE SEED-CELL BY INWARD RE-DIGESTION. THE MAKING OF THE (MASCULINE) SPERM-CELL.

After the bisexual seed-energy has concentrated itself by digestive reversal of repeated self-division, such as indicated by A and B in the illustration and has formed the finished and full-grown seed-cell (spermatogonium), it passes through two more rapidly successive and extra reductive self-divisions, indicated by diagrams C to H (Ill. 91). The first of these divisions converts the parent of the sperm-cell, C (spermatocyte) into 2 scion-cells, G; the second converts these scions into 4 scion-cells, H—the sperm-cells. C is therefore the grandparent of H in this special, reductive self-division and propagation. The sperm-cell metamorphoses. The digest-power in its nucleolus eats up the juicy nucleus and converts itself into the firm head of the

Third: They ingest two kinds of conscious energy from the substantial fields about them.

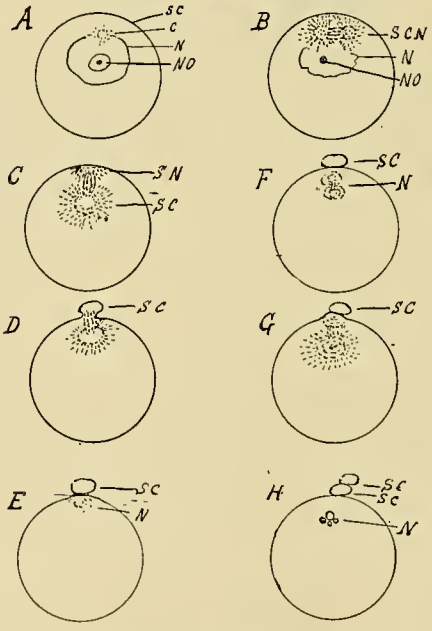
Fourth: They eliminate two kinds of sewerage into their material environment.

The ingestion and egestion is, of course, a matter of interaction and counteraction between the digest-centers and the periphora; but the periphora is made up of four distinct fields of activity, hence we can speak of various kinds of substantial and material activity.

"spermide" (spermatozooid), while) the digest-powers of the centrosome form the body and tail of the spermide (spermatozoon)—the final embodiment of masculine seed-energy. The seed-cell of bisexual tendencies becomes a single sex-cell of masculine sperm-energy, by repeated redigestion of the sympheromenal tendencies in it. In these tendencies predominates the feminine character. Redigestion converts this character into masculine energies or eliminates it into the body of the animal in which the cell lives.

The concentration of seed-energy by reductive self-division is accompanied by reduction of the seeding parts into which the seed-string divides itself during ordinary self-division. Only half as many parts appear in the final reductive division, but copulation eventually restores the original number.

ILLUSTRATION 95.



REDUCTIVE SELF-DIVISION BY INWARD RE-DIGESTION IN THE SEED-CELL WHICH EVOLVES THE FEMININE EGG-CELL.

The diagram 95 shows eight phases of the concentrative evolution of feminine seed-energy by reductive self-division.

THE WORK OF FERMENT CENTERS IN THE PROCESS OF EXISTENCE.

The ferment-centers in their sewerage work behave much as do the digest-centers in their work of life; except that they cannot ingest or egest much of the conscious factors active in the field of substantial energy, the fields which pass through them and which counteract their own tendencies and capacities; thereby regulating them.

Sun- and planet-making are universal counter-procedures in the fermentation process. Suns (fixed stars) and planets act as do

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A shows the seed-cell, S. C., which still retains its original bisexual tendencies. N is its nucleus or core. N. O., its nucleolus, a seat of concentrated bisexual character-power. C, its centrosome, or concentration of body-building power.

The centrosome in this specially reductive division does the predominant work; the nucleolus does the subservient work; bisexual powers, which are vested in its seed-string, are to be reduced; the masculine tendencies in it are to be eliminated, so that the feminine tendencies may be concentrated and prevail thereafter. The nucleolus has concentrated its powers digestively into what we might call, provisionally, nucleine and paranucleine, shown by a dot within a small ring.

In A the centrosome is beginning to act egestively at its outer pole and ingestively at its inner pole, thereby drawing on the nucleus for nourishment.

In B the centrosome power, S, C, N, begins to divide itself, having overcharged itself within. The nucleus, N, upon which it has drawn, shrivels. The nucleolus, N, O, has further concentrated its energies and begins to disappear on the outside.

In C, the divided centrosome has increased its egestive activity, and it has placed itself in line with the axis of predominant movement in the periphora, in order to eliminate masculine, diapheromenal seed-energy at S, N, toward that axis, the line of least resistance and sympheromenal attraction.

At D the diapheromenal seed-energy, S, C, is concentrated and bulging out of the body of the cell; and the centrosome loses its egestive activity. In E, diapheromenal seed-energy, S, C, has been separated from the cell, and the egestive activity of its centrosome metaboles into ingestive activity again at its outer pole, N. The first rapid division is complete.

In F the centrosome, N, resumes its outer egestive activity at once, without the usual rest, required to restore the inner digest-powers of the nucleus; for it is not an equally active factor in this reductive division. Its seed-string is being acted upon by bodily digestion, for a reason similar to that which causes the bees to kill the drones in the hive when no longer needed. The purpose of this division is reduction of diapheromenal energy, and concentration of sympheromenal energy.

In G the centrosome power again adjusts itself to the axis of outer activity to push the diapheromenal seed-energy out of the cell. In H, the second concentration of seed-energy is eliminated and the centrosome has resumed its ingestive work. There may be, or there may not be, another elimination, until the nucleolus loses one-half of the seed-energy vested in its seed-string. This done, the remaining seed-energy has become vested in the core of the egg, which is now single-sexed; feminine and working for maturity and eventual copulation.

all ferment-centers; they are aggregations of ferment-centers of opposite character-powers, and therefore they proceed in opposite directions of sewerage development and envelopment. But, although proceeding in opposite directions, they follow the same

The masculine seed-cells, which have been eliminated in the process of concentrating feminine seed-energy, are eventually eaten up in the organoid, in which they were produced.

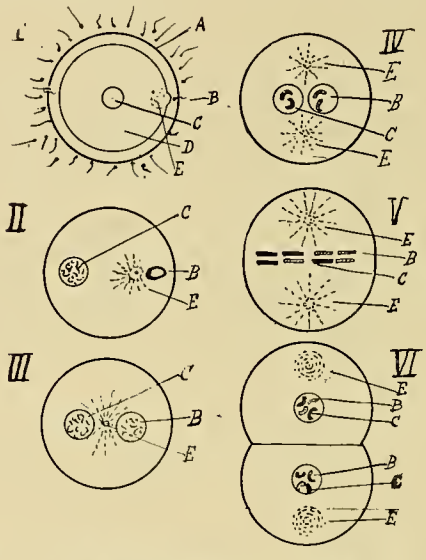


ILLUSTRATION 92.

PROPAGATION OF ELEMENTARY LIFE BY COPULATION.

Fig. 1 in Illustration 92 shows a ripened egg-cell, consisting of innumerable re-digestive centers, which give it its special character-power, vested partly in D, its yolk, and in C, its core or nucleus. This character-power has both body- and mind-making tendencies, capacities and activities, and it egests the surplus products of both mind- and body-making activities into its environment, forming a periechon to its own radio-active digest-centers, as does all life. The periechon attracts sperm-life, not by smell, but by the digest-power in sperm-life. It draws on the conscious energy in the periechon for nourishment.

One spermide (spermatozoon) at B penetrates into the housing, A, of the egg-life, where the centrosome, E, the concentrating energy of the body-building power, bulges out to meet the spermide (called spermatide sometimes). The centrosome, E, still acts ingestively.

In Fig. 2 the spermide has entered the yolk of the egg. It left its tail behind to pluck up the place of entrance. The centrosome, E, is going into egestive activity at its outer pole. It moves by the side of the spermide toward the nucleus, or cell-core, C, of the egg.

In Fig. 3 the spermide, B, has nourished itself, by inner interaction with the centrosome, E, to maturity. It is now getting ready to divide its seed-string; and so is the approaching nucleus, C, of the egg.

In Fig. 4 the centrosome, E, divides itself, having overcharged itself within by ingestive activity from without. The core of the sperm, B, as well

principles of cyclic counter-procedures which characterize all of nature's activity, for they are controlled by the same to-order-setting radio-active energy.

The body of the sun is made up of ponderable matter of planetary origin. The sun was a planet once in an older solar-planetary system.

The surface of the sun is in a state of rapid disintegration of matter by fiery fermentation-process. The surface of the earth is in a state of slow concentration of matter by the slow or watery fermentation-process.

ILLUSTRATION 93.

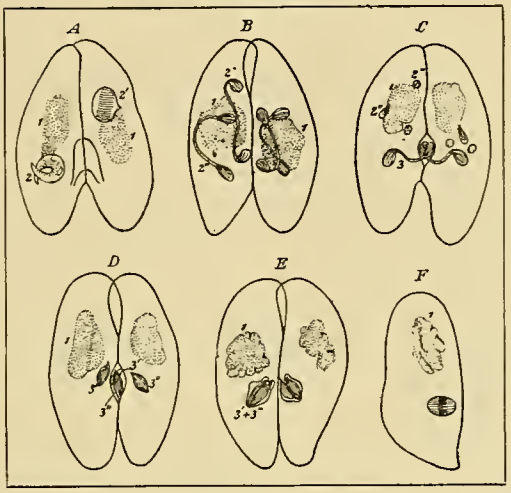
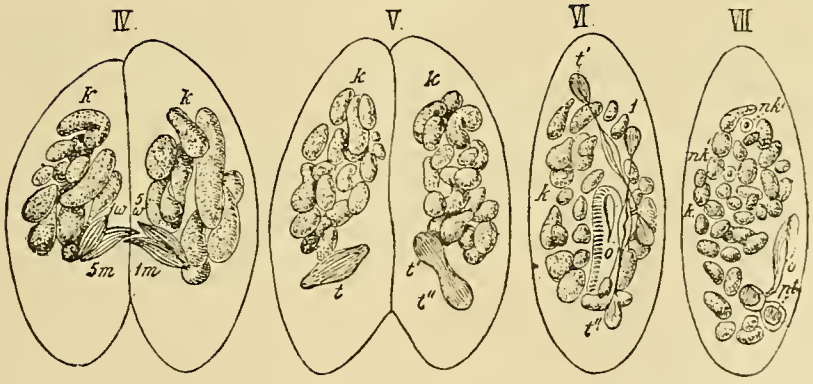


ILLUSTRATION 96.



as that of the nucleus, C, have divided their seed-strings into half of their usual number of seedling-parts; two in this case.

In Fig. 5 the divided centrosome, E. E., is going out of diapheromenal,

Sun- and planet-making is the work of continued counter-procedures in the sewerage work of the universal process of life and death.

The world is built up of solar-planetry systems, and all these systems work on the same principles as do all ferment and digest-centers; all have four features and three phases of activity in common. All work in the same universal chain of eternal causation, in which ferment- and digest-centers act as the individual links or **crossing-points,** where life and death meet to part and to meet again in momentary cycles or solar-planetry ages, and where the radio-activity of conscious energy does the determining work of

egestive activity at its outer poles to become egestively active within. The seedling strings, B and C, are crossing over from sperm to egg, from egg to sperm.

In Fig. 6 the centrosome has become ingestively active at its outer pole and egestively active within. As a consequence, division of the cell begins. The seedling strings (chromosomes), B and C, have all this time been active digesters of conscious energy; their digest-powers are now metaboling into physical activity, which will reunite them and restore the original number of seedling characters in the scion-cells.

The spermides, swarming about the egg, before one of them enters at A, are easily killed by alkalies or acids. They cannot live under the influence of one-sided physical nourishment.

Illustration 93 shows six stages in the workings of seed-energy by so-called copulation of the paramaecium or slipper animal. "1" shows the elementary redigestive seed-energy, which nourishes the special forms of evolved seed-character, 2 and 2' in A.

In B, the seed-character undergoes its first division, 2'' and 2'''.

In C, it undergoes a second division in four parts. Three of these parts are eaten up. The fourth does the propagating work. 3. It divides itself again. These divisions copulate as shown and form the germ-power, 3' and 3'' in D and E.

In F, this power prepares itself for another copulation, after Maupas.

Illustration 96 apparently shows a variation of the workings of the seed-germ in the paramaecium, consisting mainly in the apparent changes which take place in the nucleus. Illustration after Hertwig. The division of the fourth and only surviving seed-germ in C has divided itself into two seed germs with masculine and feminine ends.

In D, Illustr. 96, the masculine ends change places in the copulating animals and prepare for reunion, while the nucleus K goes to pieces.

In E' the seed-germs re-unite at t, and they re-divide themselves at t' and t''.

In F' they divide themselves once more. In G' these divisions begin to reproduce a nucleus, pt, and another seed-cell, N. K. What is left of the old nucleus is redigested. The whole process is one of redigestion and self-division under promptings of holy hunger, to the satisfying of which the body of the copulating animals contribute virtually nothing.

This going to pieces of the nucleus looks like a case of **endogenesis;** in which seed-cells of opposite gender copulate, without causing self-division of the cell. Eventually these wasteful seed-cells are eaten up and converted into a fertile nucleus.

life and death—the all-to-order-setting work of life and death.

In the universal fermentation process, the non-vital **planetry forces** do much knitting of matter and little unknitting of substances; while the **solar forces** produce much unknitted substance and little knitted matter, such as meteoric ashes.

In the individual digestion-process the powers of life work equally with knitting and unknitting matter and substance.

The substance and matter which the digestion-process produces differ from those which the fermentation-process produces, by the one-sideness of knitting and by the one-sideness of the character-power which does the knitting. Knitting and unknitting of matter and substance characterize the process of life and death, and produce all transformation of existing things. Knitting and unknitting of the stuff of existence divides it into all states of aggregation and dissipation, and into world-wide fields of activity and passivity. There are four different fields in the **periphora**; one substantial and one material field, in the non-vital workings, and one of each in the vital workings. These fields do not remain distinct, they become in part unified by the digest-centers. The work of the ferment-centers runs into that of the digest-centers and that of the digest-centers into that of the ferment-centers in the way of life; that is, dead stuff goes partly into life and living stuff partly into death, as the cyclic counter-procedures of life and death cross each other, ever meeting and parting.

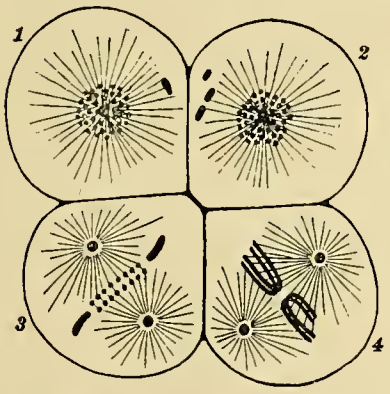


ILLUSTRATION 100.

Illustration 100 shows the same cell seen from two points of view. 1 and 2 show the appearance of the cell seen from the pole, at right angles to the plane of division. 3 and 4 show it as seen from the plane of division. In 3 the seed-string parts; in 4 the new seed-strings have formed.

The power which does the knitting and unknitting of ponderable and imponderable matter and substance has individual and universal characteristics. It acts in the smallest possible thing as well as in world-wide ways. It lives in the minutest digest-center, in the organic corpuscle, and in the all-penetrating field of conscious energy. The knowledge of this power is the key to the understanding of the world-process. We cannot see it through microscope or telescope. Yet we can know it; and knowing it, we can speak of it; we can describe it; we can present it by ideograms more fully than by words.

OUTLINES OF THE WORLD PROCESS.

FACT.

The world-process is the sum total of all facts of existence, of the all there is to "doing" in nature. This "all" is easily knowable in the natural way of thinking and speaking; but it is next to unknowable in our subjective way of thinking and of using words. It is a difficult study by alphabetic means unsupported by ideograms.

The world always was what it is now—a process of life and of solar systems. It never was all fire, and it never was all water. It never was a fiery cloud, nor a watery cloud, any more than it is now sometimes at some places. It never originated. It was always.

There is no possibility of adding anything to the stuff of existence or of taking anything away from it. The origin of any or all things is only a metamorphosis.

In our way of using language we give the word "origin," like many other good words, an extravagant meaning.

By this extravagance we delude the judging powers of mind.

There never was any origin from nothing. There never was a nothing. There is none now outside of the dictionaries and the learnedly acquired idea of it.

If there is no origin, there can be no original causes. All that can be called an original cause is the immediate cause of a metamorphic novelty.

All the original causes, if properly understood are only intellectual aspects of factors in the metamorphosis in which all things partake.

METAMORPHOSIS.

Metamorphosis may be considered a world-wide Fact.

The active causes in the world-wide metamorphosis are: Digest-centers and Seed-energy in the way of Life, and Ferment-centers in the ways of Death, both controlled by consciously energetic, to-order-setting Radio-activity. And that is all.

RADIO-ACTIVE CONSCIOUS ENERGY IS THE ACTIVE CAUSE IN THE PROCESS OF EXISTENCE.

If we know what radio-activity, digest- and ferment-centers and seed-energy are doing, we know the active causes in the world-

process. There is no difficulty in knowing these causes, nor "why and how" they are producing all kinds of metamorphoses.

The "why" digest-centers are doing something is plainly an effort of the first radio-active cause to evolve, sustain and perpetuate life. The "why" ferment-centers are doing something else is to restore life's offal to the order of life.

Living is the great purpose of nature's activity. The love of life is the mainspring of creation. Straining to live is the universal tendency to evolution of individual capacities for maintaining the order of life.

All individual forms of life are only special ways and means of perpetuating the universal order of life.

All dead things in nature are products of expenditure in individual capacities to live. The conscious strainings of life result in the unconscious rest of death, and also in its cyclic return to life; for the dead things in nature do not remain dead forever, any more than any forms of life can remain alive. The forces of death move away and toward the powers of life in cyclic counter-procedures.

NECESSITY.

All things in nature labor under the necessity which the order of life imposes on the stuff of existence. The joy of living bears the burdens of counter-active forces of death. The forces of death work for and against the powers of life in all atomic radio-activity throughout the world. They prepare food for the requirements of life and they destroy life in their counter-procedures.

The "Why and How" of radio-activity underlies all mobility and motivity in nature; it is explained in one of the following chapters, as the first step of evolution taken by TI, the first cause of creation in ancient Chinese cosmogomy.

LIFE AND DEATH ARE PRODUCTS OF THE CONCENTRATION AND DIFFUSION OF CONSCIOUS ENERGY.

Life is always an organization of digest-centers moving from and toward seed-energy.

Death is always a transition, from the Way of Life to or toward the extremes of material solidification and rarification and back to the way of life, carried along or about by changeful character-power of ferment-centers.

To know the inner workings of life and of death amounts to nothing more than to know the inner workings of universal and

individual changes in the radio-activity of digest- and ferment-centers. This activity is formulated in the Fu-hsi trigrams.

Every individual factor in the chain of natural causation does radio-active work. Digest-centers do organizing work, besides. Seed-energy preserves the work of organic digest-centers in very simple ways, as we will see in the coming chapters.

THE FOUR-FOLD DIVISION OF THE STUFF OF EXISTENCE.

Radio-activity divides the stuff of existence into four fields and it unifies these fields again in the activity of ferment- or digest-center. These centers generate their own individual fields and give them typical radio-active character power.

Radio-active character-power divides the stuff of existence into that which is known as matter and mind; i. e., into matter which has little or no consciously active energy and into conscious energy vested in but little substance.

The ferment-centers produce four fields of various knitted or unknitted stuff; and the digest-centers generate four other more or less conscious fields. This would total up as eight fields if we apply mathematics, but nature is not a mathematician. The two sets of four fields each, interact at all times and immediately, so that they make but four divisible fields of the stuff of existence. These four fields of individual origin in ferment- and digest-centers become world-wide, because atomic radio-activity works in world-wide ways; it works in all digest-centers and in all ferment-centers throughout the universe.

The four fields of nature's activity, in which all ferment and digest-centers work, may be shortly described as follows:

1. The field of ponderable matter and of physical forces.
2. The field of imponderable, solar, light-heat matter.
3. The field of electromagnetic substance.
4. The field of substantial and conscious energy.

These fields make up the atmosphere of existence; the **peri-phora** which nourishes all ferment- and digest-centers.

Solar and planetary bodies are only great accumulations of ferment-centers in the four fields of nature's activity.

FERMENT AND DIGEST CENTERS.

The activity of ferment-centers in death differs from that of digest-centers in life in this:

Ferment-centers act only individually and relatively within and without. Digest-centers act as families, organically and recip-

rocally within the cell-family or so-called corpuscle, and relatively without. The explanation of "relative and reciprocal" are given in the chapters on Chinese cosmogony closely following this.

The things which biologists call "cells," or individual cell-life are all biaxial. They have an axis of the centrosome and one of the nucleolus. Being thus biaxial, they are really a family of two double-active factors working in four-fold procedures.

In self-division toward organic evolution, these factors produce masculine and feminine cells, and sexual character-power of organic life. If there are any individual forms of life, they are only in a state of transition from a ferment-center to a digest-center.

The amoeba is not an individual form of life; it is a family of digest-centers. (See illustration.)

Life perpetuates itself always by reciprocal interaction of the radio-active digest-centers within the cell-family, whether it be going into organic- or into seed-form.

Ferment-centers become digest-centers by embodying two or more radio-active centers into one housing. There is a continuous transition from death to life, as there is from life to death.

ORIGIN OF SOLAR SYSTEMS.

Solar-planetary systems originated in the offal of life; i. e., in the accumulations of defunct digest-centers which have been converted into ferment-centers.

These accumulations are restored to life by conversion of ferment-centers into digest-centers, in the way of disinfection and in that spontaneous combustions, resulting from penetration of knitted matter by the imperceptible fields of substantial energy.

The entire earth, as well as all planets, is made up of the offal of life. It is a graveyard in the making. Even the primary rocks, which show no vestige of life, are metamorphosed remnants of life.

Our sun and all fixed stars are of planetary origin. All were planets once in older solar systems. All are abandoned graveyards in process of restitution to life. The heavens are filled with solar systems. These systems do not originate by accidents. They originate in the cyclic counter-procedures of life and death. They are accumulations of life's offal. They constitute the universal sewarage-system of universal life. They grow by the side of life. They pass through a regular, unending, cyclic metamorphosis.

ORIGIN OF MIND-POWER.

The mind originates as does life in digestive radio-activity, which concentrates and converts **universal tendencies** to consciousness (see Seng Wan Mau) into **individual capacities** of consciousness (see Tai Kih).

The special powers of mind are evolved by organization of digest-centers, which do special work in the organism. (See explanatory of Kua and Tchy.)

Four kinds of digest-families work in all but the lowest of organic bodies. (See transition from Tai Kih to LI.) Some of these digest-families made bodily tissue, others make brain tissue. This latter tissue-making produces mental powers. (See LI.)

FOUR TYPES OF LIFE.

The four kinds of digest-families produce four protozoan types. Two of these do sewage work; they are scavengers and sewage redeemers; the other two work up into highly organic conscious and self-conscious character-powers of life.

All digest-centers draw directly and indirectly in various ways, by various organic means, on the four fields of the active stuff in nature.

DEVELOPMENT OF SPECIAL POWERS OF LIFE AND MIND.

The mental powers are developed in the organic body, just as the special organs of the body are developed, that is, by process of digestion and of six-fold re-digestion in the body of man. The stomach is only the elementary and most physical organ of digestion in the human body. The advancing mental re-digestion is done by other organs in the body. The nerve and brain cells are families of digest-centers, as well as any other cells in the human body; they have highly evolved redigestion powers. They ingest from the field of consciousness and they egest into this field, in the same manner as ordinary cells ingest from and egest into the other fields. This process of ingesting and egesting may be seen by watching cell-life under the microscope.

THE ORIGIN OF THOUGHT.

Thought is evolved in the **three phases** of the world-process; the physical phase, the mental phase, and the intellectual phase. The thinking faculties are evolved out of more elementary powers of life and mind, as are brain-cells, in the way of redigestion and

self-division in special cell-life, and by the interaction of the cells in brain-tissue among themselves and with those in bodily tissue over nerve-connections, or without such connections, by working on the principle of wireless telegraphy, through the connection which the all-penetrating field of conscious energy furnishes.

During the course of evolution and development, the digest-

ILLUSTRATION 98.

A Mongolian ideogram which represents human life as a unification of heavenly and earthy emanations. The Oneness of Creative Character, its four-fold principles of procedure and the three-fold phases of causation in the way of evolution are here symbolically represented, as is also the double soul or character of man, its aspirations and its interaction with creative causes.

IDEOGRAM OF CONSCIOUS ENERGY, WORLD-WIDE AND HUMAN, FROM WESTERN CHINA.

The upper part of the design symbolizes the individual character-power in the world-wide field of conscious energy—the creative energy.

The four cyclings in the universal process of fermentation and digestion, which characterize all radio-active energy are here shown by four circles as surrounding the determining center—the living unnamable character-power. These cyclings characterize the **Wheel of Time**; that is, the risings and receedings of physical hunger and physical satiety and those of holy hunger and holy satiety in digest-centers, which divide the stuff of existence by polar activity into four fields of the all-nourishing periphora. These four fields are the eventual products in the way of highest evolution, which begins with the four elementary products of digest-centers and which I have provisionally called "protein, saccharine, spirit and oil."

This part of the design forms a cross, pointing north and south, east and west, and it stands representative of the principles of TI and Shang Ti.

centers in nerve and brain-tissue interact constantly with those in their own special fields and with that of conscious energy; they assimilate conscious substance, and they eliminate some of it. The powers of thought are nourished as they are evolved; that is, by ingestions from the fields of conscious energy. The conscious

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The circles intimate endless counter-movement and the all-important **meeting and parting** which does the work of evolution or creation and procreation. The three-foldness of causation, or the three strands in the chain of eternal causation, are represented in each of the four circles.

The lower part of the design depicts the heavenly aspirations of the duality in human character-power: The soul of bodily death-going Sense, and of the immortal Reason of Living. This duality is the product of interaction and unification of world-wide conscious energy with individual reanimating power active in earthy matter in the way of digestion and organization of digest-centers. Both factors in human character-power are aspiring to heavenly conscious energy, as shown by the two upward flamings—one rising from the wheel with eight spokes, the other from the systematically woven tissue.

Two kinds of work are done in living nature here below. The knitting of reanimated matter and the embodying of radio-active conscious energy, and this work aspires to unify itself with the world-wide field of conscious energy in the heavenly sphere above and with the eternal principles of life and death, determined by the radio-active character-power, its all-to-order-setting world-wide work.

The wheel represents the soul of ever-living Reason, vested in the self-consciousness of man. This consciousness does one kind of work in living nature, that of embodying conscious energy by ways and means of digestive powers. The Tai Kih in the hub of the wheel represents this consciousness as the biaxial power in the process of digestion.

The interlaced weavings represent the soul of bodily tissue and sense, vested in the organic body-building power. This power does the other kind of work in living nature, that of building housings for conscious energy by the knittings of reanimated matter.

The interlacings consist of two triangles, pointing up and down. The former represents the bodily character-power as building the organic housing of life; the latter represents the same power as building the housing for seed-energy.

This two-soul idea corresponds to the biaxiality in radio-active digest-centers—the two polliwigs in Tai-kih or the nucleolus and centrosome in our way of looking at life.

The above is only a fragment of a large design which elucidates the principles of life and death according to the mythical pictures of the school of Fu-hsi or Ta'i-hao-Fu-hsi-che, the mythical civilizer of China, by the civilizing purpose prompted, by discernment proceeding to determine upon doing the Right Thing at the Right Time. Fuller explanations would encroach on the domain of theology.

The idea embodied in the four circles in the upper part of the ideogram, for instance, connects itself not only with the personifications in the Chinese Tetramorph, but also with the four-faced Brahma, with Ianus Qudrifons, with the Christian Tetramorph, and with the Tetragrammaton of the Old Testament. It refers to the four-fold polarity of the biaxial character-power and its principles of creative procedure in life and death.

energy in the fields without finds unification with the conscious energy in the mental digest centers within the human body by the process of digestion. Language serves as a means to give form to the consciousness of mental digest-centers.

The all-penetrating field of conscious energy transmits the sound of the voice to the ear, not in mechanical but in conscious ways. The conscious effect, produced in the recipient mind, is

ILLUSTRATION 99.

A Chinese ideogram depicting the radio-active biaxial atom as the elementary unit in natural causation, and beneath it the double-active discerning powers in natural intelligence (represented by two dragons), which look upon the comprehension of this activity the chief desideratum of all knowledge. Similar designs often appear on ancient paper money, for instance, that issued by the Ch'ing dynasty, which was redeemable in payment of taxes, import duties or purchase of rank.

The gist of the ideogram centers in the necessity of discerning vital values. The inscription of the value on the notes appeared among cloud-signs, suggesting that this money-value was a make-believe as compared with the ends which it could serve: Fu, Lu, Shou; that is, happiness, honor, long life; this is a favorite expression of the Chinese to convey the above idea.

The illustration depicts radio-active atom as the individual character-power in the universal field of conscious energy by a flamboyant sphere, toward which the discerning power of the human mind directs its thinking faculties, here represented by two dragons reaching upward. These dragons are the glyphic representation or personification of the mental powers of discernment. The body of Fu-hsi was that of a dragon, say the Chinese myth-writers.

Conscious radio-activity is the **Gist of Fact** toward a knowledge of which the discerning power of thought naturally aspires. The flamboyant sphere is the symbol of the atom or the radio-active, indivisible unit of conscious energy. Toward a full knowledge of this unit aspires the double-active, discerning mind-power in man.

The atom of conscious energy lives in the self-consciousness of man. It is the determining life-power in his organic evolution, from the eternal powers of life descended. This atom is indivisibly double-active. The substance in which it is vested and in which it works is never indivisible, but minute as it is, it is constantly dividing itself and ever changeful. It, too, lives by digestion and by its connection with the all-penetrating field of conscious energy. Therefore has this atom in the human body immediate knowing powers of principles of life and death, and mediate knowledge through the special senses of

digested and redigested in the self-conscious determining character-center of the organic body and mind, or in the auxiliary digest-centers of this one character-center. Sound could not carry ideas, if it were not consciously generated, consciously carried along and consciously received. This is the intellectual work which language makes possible.

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the outer forms of the all-there-is-perceptible of the not-self.

The flamboyancy of the sphere connects itself with the Greek idea of "pur aeizoon," the ever-living glow of conscious energy, and also with the Herakleitean idea of ekpyrosis. The sphere stands connected more closely with the idea of sphairos than with that of sphaira.

The flames as shown indicate the biaxiality of the symbolic atom.

A CHINESE IDEA OF PROTECTING THE MIND AGAINST REVERSAL OF NATURAL INTELLIGENCE BY ALPHABETICAL LEARNING AND WORDY-WISDOM.

Ancient China has been much troubled by the political assertion of irrational opinion, and hence it studied the subject of right-thinking and right-speaking,—logic and rhetoric. It has also given much thought to ridding the mind of **fixed ideas.** Thousands of ideograms represent the fact that thought, by words mislead, deludes the reasoning powers of the mind.

ILLUSTRATION 101.

Symbolic Vestment of Ideas from the "Institutes of the Chow Dynasty," B. C. 1121. Chow Li Kwan Chou. Aligning, the work of speaking thought and the use of intellectual tools to the Logic of Life, (Tao); this the ancient Chinese held to be a fundamental necessary principle in education for Right-thinking to insure Right-doing.

Speaking after the manner of nature armours the living mind against the deadly counter-active forces in the passions of the heart, and against the devitalized whims in the head.

ILLUSTRATION 102

The living discerning power in every thinking mind strains to digest the word-vested ideas, placed before it **after the manner of nature**—in accordance with the principles of life and of death.

THE TURTLE AS THE SYMBOL OF THE UNIT OF LIFE.

The manner of depicting and personifying the active character-power in nature and civilization by certain animals had been reduced to a science in ancient China; and it seems that all the civilizations on earth followed the lead of the Chinese in this personifying system. The turtle, to the Chinese mind, depicts **the unit of life,** the unit which our biologists call "corpuscle."

MENTAL EVOLUTION AND NUTRITION.

The process of evolution is one of advancing powers in digest-centers to ingest more and more conscious energy from the four fields of nature's activity.

The digest-centers of lower powers draw on the more material and less conscious fields, while those of higher powers draw on the less material and more conscious fields. The material fields

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This unit is a family of digest-centers, under control of a determining character-power, and in one housing enclosed.

Life sustains itself by bringing the inanimate counter-active forces into its cyclic procedures. Therefore says the Chinaman, "Heaven is round," when he refers to the cyclic whorlings of all conscious energy.

Death, also, has its cyclic procedures, but they go into the four extreme points of polar activity, away from the circling balance of life,—away from the animating and to-order-setting Crossing Point in radio-active conscious energy. Therefore says the Chinaman, "The earth is square," when, in his figurative way of speaking, he refers to the planetary graveyard, the abode of death, or to the death-going procedures.

The ancient Chinese knew very well that the earth is a sphere; but considering it as a graveyard, they called it square, figuratively speaking, and they speak of the four quarters of the earth, when referring to the polarity in biaxial activity.

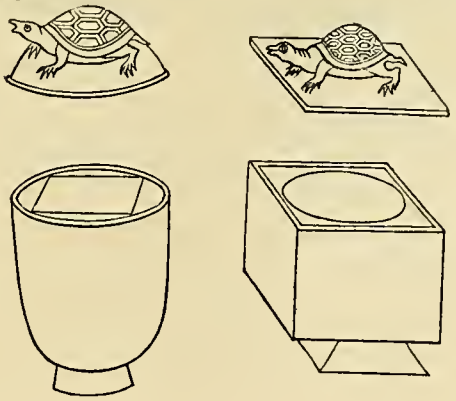
In life the four poles figuratively called north, south, east and west by the Chinese, work in immediate connection with one conscious focus; in death they work away from this conscious focus toward predominance of unconscious force in one of the four polar directions.

ILLUSTRATION 103.

Illustration 103, from Thom's ancient China, depicts the difference between the two ways of speaking the truth; the ideographic, which represents facts "in fieri," and the terminological which represents conceptions of fact by fixed ideas, vested in defined words. This difference is virtually the difference between life and death, and incidentally between the consciousness of life and fixed ideas of truth. There is a a great deal to be said about the cardinals of phonetic and aphonic language, of which the square and circle are the symbols.

ILLUSTRATIONS 104 and 105.

In the Chow dynasty, when the utensils of daily life were formed artistically for educational purposes, the ideas of going into life and of going out of it were represented by squares in a circle or circle in a square, as shown in Illustrations 104 and 105, depicting two communion vases of that day, called Kwei and Foo.



furnish the nourishment of body, the substantial fields that of mind and thought.

The physical, mental and intellectual digest-centers egest digested conscious substance, so as to form special fields of their own type about themselves. These special fields become part of the world-wide fields by interaction of the digestive character-centers,

ILLUSTRATION 106.

Ancient China recognized the necessity of balancing the intellectual work by the immediate consciousness and knowledge of life; and it insisted on verifying the ideal work of thought by the consciousness vested in life.

The relative value of immediate, living consciousness, represented by an ingot-sign, and of acquired ideas, represented by a writing tablet, is here illustrated by a Chinese ideogram from an ancient "Cash."

Our modern idea of the paramount value of money, as a circulating medium to insure the welfare of civilization, fits the Chinese idea of placing educational designs upon coins for the purpose of generating and circulating ideas of value to civilized life so well that I use our word "Cash" to represent the small coins of China, called "tsien," as well as all other coins, medals or amulets, which bear educational ideograms.

The design shows a scale with unequal beams. From the end of the short beam hangs a "double-ingot" sign; from that of the long beam hangs a writing tablette, bearing the phonetic sign "I" and meaning the **desire** of the word-wise intellect. The ingot-sign symbolizes mother-consciousness; that is, the consciousness which is vested in the powers of life and out of which thought coins the circulating "**cash**"—the ideas which the world values of truths. The ingot-sign appears here doubled up, because nature, all in all, is double-active. The ingot is suspended at the end of the short beam, in order to indicate that a little natural intelligence, in the scales of truth, weighs as heavily as all the wished-for wordy wisdom.

"An ounce of Common Sense is worth a ton of collegiate learning," said Frederick William IV, King of Prussia.

active within both fields. Every digest-center has its own local field by means of which it connects itself with the world-wide fields. (See periechon.)

The meaning of the whole design refers to the necessity of realizing that the intellectualized, wordy mind must not ignore its native consciousness, but must balance and verify its word-knowledge by its consciousness of life, by its living reason, its common sense, its native conscience and character-power; all of which are factors in the ingot-consciousness. The Chinese idea of balancing the acquired intellect with natural intelligensce, so as to maintain the order of life by powers of thought, is the reverse of Herbert Spenser's idea that the balance of imaginary units establishes the order of life. It is the reverse because the working order of Spencer's mind had been reversed by word-knowledge.

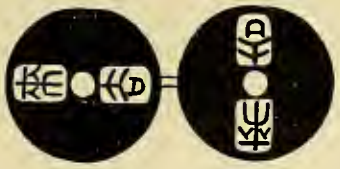
Thinking, according to the Logic of Life, produces ideas which result in Right-doing, or, at least, in determinations to do the Right Thing at the Right Time, so as to make civilization a blessing to the individuals which compose it.

The inscription on the reverse side reads Jih Yu Wan Pei, meaning that the well-balanced mind will multiply the advantages of civilization in daily life **ten thousand times**; that is, its leadership will make civilization and family life an abounding success. This assertion might be taken to intimate that the alphabetically unbalanced mind will make a dire failure of civilization, and that intimation is true even in this moment in our own civilizaton. Yet we think we are wiser than the sages of old China.

The crescent beneath the square suggests that reflective thought exercised in due measure—within limits—serves humanity well, as long as it does not overbalance natural intelligence and the unspoken, living consciousness.

Illustration 107. A "cash," the aphonic inscription on which, if read phonetically, Lai chi, expresses the wish: **May Fate be propitious**" (to the fool). Trusting to luck makes the work of civilization a dismal undertaking. The Fates are propitious, if the thinking mind makes proper and timely use of the tools of life, mind and intellect, and if it determines upon doing the right thing at the right time, during the changeful order of life.

ILLUSTRATION 107.



Our leading thinkers cannot reason from cause to consequence. They only guess. They guess without considering the Logic of Life. They guess irrationally; and they cause the civilizations, which follow their guess-work, to plunge into unreasonable endeavors. Therefore must we hope that something may turn up to save our civilization from the evil consequences of irrational endeavors. Therefore must we take the Chinaman's wish to heart: May the Fates be propitious to the fool, who ignores destined necessity to welfare. The repeated aphonic inscription on the "cash" is placed crosswise on its two sides, to denote the cardinal points in the changeful polarity of life's procedures.

We are just at this time passing a turning point in our national affairs, and our diplomatic politicians are doing their utmost to founder the ship of state. May something turn up to prevent them from boring holes in the ship's bottom!

THE KNOWLEDGE OF THE WORLD PROCESS FROM THE VIEW POINT OF THE PRE-ALPHABETICAL MIND.

Before the alphabets were invented the human mind had little difficulty in knowing the world-process. It did not use words to delude its natural knowing and reasoning powers. It had no philosophical, theological, mathematical, chemical, or other ideas to lead it away from fact-knowing into abstract conceptions. It had acquired no taste for mid-air ideality or tangential idealism.

ILLUSTRATION 108.

An ancient Chinese coin from a work entitled "The Coinage of Ancient China." (Ch'in Ting Ch'ien Lu.)

Radio-aetivity is recipient and responsive in life, mind and thought Speaking of radio-activity in intellectual powers, we may say these powers are evangelic and apostolic; and they are this in a four-fold way, if they work in accordance with fundamental principles. The human mind has dual powers; it works toward inwardness and toward outwardness. Therefore, this design, which represents its workings, must be conceived as showing four double-headed powers, interacting with the one field of conscious energy and particularly with one radio-active focus in this field, or connected with and representative of that field, as is fully evolved free-agency self consciousness. (See Illustration 74 in "**Introduction to Errors of Thought.**")

The character heads that work for inwardness, and the heads that work for outwardness meet to part. The evangelic and apostolic working about the radio-active digest centers are here represented by four spirit-signs in butterfly form, for the ideogram refers to intellectual workings. It is taken from an ancient "Cash." The wings symbolize the apostolic pointers, and the heads the evangelistic pointers. Their combination is representative of the two character-powers of the Tchy, or alleged zodiac, which symbolizes the changefulness of double-active character-powers in the cyclic counter-procedures of life.

Ancient China knew intuitively and by ages of adverse experiences, that the practice of instructing the mind in words and the excessive development of word-knowledge impaired man's immediate knowledge of Fact, his ability to think according to the Logic of Life so as to judge Fact **as it is in itself**, and his capacity of reasoning from causes to consequence. Therefore did China put thoughts in form of ideograms, therefore did it hold its phonetic sign-language, as much as possible, to ideographic roots, in its aim to avoid the use of more abstract alphabets. Leading the intellectual faculty too far into wordy development affects the mind unhappily. On the one hand it daemonizes, on the other it stupefies; and between these two extremes it generates cunning, a desire to over-reach, and foxiness in the use of language, as illustratd by the designs on a temple-cloth. (Illustration 108½.)

The mind naturally thinks about its immediate knowledge of fact which comes embodied in the consciousness of life. Only when the mind has become alphabetically instructed does it commence to think in artificial ways about the products manufactured in the workshop of speaking thought,—the products known as ideas and ideals.

Thought and language served the pre-alphabetical mind, which aimed to think objectively at Fact, only as means to the end of Fact-knowing; both served to draw pictures of Fact.

The pre-alphabetic mind expressed itself ever in picturesque ways. It looked upon thought and language only as picture-makers to represent the Facts of existence. Ideas to it were only tools of the living self. It saw no possibility that idealiy could

ILLUSTRATION 108½.

A Mongolian idea of the influence of alphabetical instruction upon the human mind; after the design on the drapery of an altar.

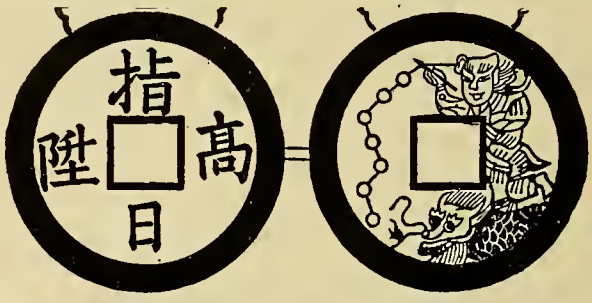
The eye in the forehead suggests that the word-wise mind sees Fact mainly by its subjective way of thinking. In this way of seeing and conceiving, the mind deceives itself. The five dots over the artificial eye refer to the "five tools" of the word-wise intellect, as being fixed ideas.

As a matter of fact, alphabetical instruction reverses the natural working order of the mind if not accompanied by those timely educational endeavors which hold thought to the immediate consciousness of Fact—to the consciousness of life and its logic; and because wordy instruction does result in this reversal, have the alphabetical ages suspended their civilizing endeavors invariably from visionary ideality; and as a consequence they have made social life a hell on earth. The actual meaning of the word "hell" implies the sufferings consequent to artificial enlightenment.

ever be superior to reality. It formed no sham-ideals—no general and particular ideas; it knew no categorical definitions. It did not judge Fact by contradictory ideas. It had no desire to make Fact fit into any ideal system. It aimed to make ideas fit the changefulness of Fact.

ILLUSTRATION 109.

The Chinese Genius of Written Language, depicted on a "Cash."



K'uei Hsing, the genius of Chinese ideographic writing, stands with one foot on the Dragon (Ao Yue) of Natural Discernment, by virtue of which all life naturally guides its activity, and by exercise of which the self-conscious mind can establish its double connection with the world-wide field of conscious energy and with the visible not-self.

K'uei Hsing's other foot is elevated in a backward direction, in order to indicate the height of human knowing-powers, occupied by the old-time sages. He points with his pen to the seven star-sign (Pei Tou), known to us as the Great Bear. In this star-sign is recorded the best of intellectual work.

Thus K'uei Hsing connects the natural discernment in elementary life and intelligence with the highest of intellectual powers, or the immediate and unwritten consciousness of Fact with the written Star-ideas,—the natural day-as the Great Bear. In this star-sign is recorded the best of intellectual work, according to Chinese symbolism.

The practice of recording the steps of intellectual evolution in Star-signs was common in antiquity. It connected itself with the old-time recognition of the fact that life and its immediate consciousness or knowing powers, are products of the digest-center, which works in conscious double connection with the not-self and the universal field of conscious energy, Shang Ti or Ch'ien or Thien, Heaven or Sky.

The reverse side of the cash bears the inscription: "The sure and speedy way to high intellectual evolution," meaning that word-vested thought, if holding to the immediate consciousness of life, naturally follows the Logic of Life, and transfers the powers of life to the speaking mind and its intellect.

The claim of the Han Lin College, that it teaches the true Logic of Life, or thinking in accordance with the living powers of discernment, has been largely ridiculed in China. Not every Chinaman thinks well of college-education.

The Han Lin scholars still hold religiously in a dreamy way, that the knowledge of their sages fully comprehended all there is to **Fact as it is in itself,** although they admit that the present teachings of the College do not produce any comprehensive knowledge of that sort.

The Chinese scholars as a rule, however, realize that knowledge must be a unification of ideas with fundamental consciousness of Fact, and that the thinking faculties must hold religiously and consciously to the elementary discerning powers in natural intelligence,—to the immediate and intuitive

In pre-alphabetic days word-vested thought had not presumed to officiate as a pseudo-creator—as a Procrustus. The pre-alphabetic mind had not learned to think in artificial ways. The word-knowing sophists had not yet come into existence to invent their hellish pretense at logic,—the syllogism.

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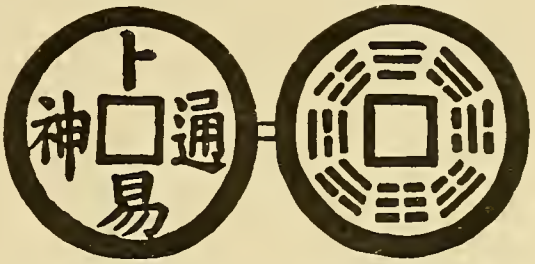
knowing powers of mind—in order to prevent their going into tangential ideality. Sometimes the above ideogram bears the inscription: "Currency of the Tao Kuang times"; this is inscribed, no doubt, to remind the modern scholar that thinking with natural discernment is an old-time, approved way, which produced better than the present condition in civilization.

ILLUSTRATION 110.

Reasoning in Accordance with Formulas.



Fu-hsi's arrangement of the Pa Kua depicts the changeful polarity in the radio-active digest-center. The inscription reads: Pu 1. T'ung Shen. "By reasoning in accordance with the Yh King formulas the mind can understand the workings of the creative character-power."

If the mind is not given the assistance of formulas, it will find it extremely difficult in many important cases, to reason from cause to consequence or to follow the chain of natural causation in the way of thinking. If we do not want to study the original formulas of ancient China, then we must study the later make-shifts of our own so called sacred writ, in order to follow the workings of active causes in nature.

The cross in the circle is the commonly accepted symbol of the ages, used for the representation of the universal and individual features and phases which all of nature's activity has in common. See the universal kitchen of ancient Assyria, Ill. 52.

In the nexus of the cross lives, figuratively speaking, the conscious energy of the all-to-order-setting character-power in nature—TI and Shang-Ti.

The arms represent the changeful polarity of the biaxial ferment- and digest-centers. The circle stands for cyclic procedures in ingestion and egestion of both body-making and character-making power, and of the reciprocal as well as the relative work in the digest-center. In the arms and circle takes place the changeful predominance and subservience of the solar Yang yin and Yin yang and of the earthy Yang yin and Yin yang, which produce the universal and individual changes in the inwardness of nature's activity. The outward workings of the four changeful poles are, of course, of the double-active kind; each produces two lateral effects to its own axial activity, thereby making twelve notable changes of outer character-powers. See the Chinese Tehy.

The two figures in two fields do vital organizing work for the reciprocally working digest powers. They work in the way of ever-living Reason. The one figure in the two other fields does the reanimating and eliminating—the relative work of sensible diges-centers; it does the work of mortal sense,—of the inner **Organizing Sense** in the one field, and of the outer **Adaptation Sense**

The pre-alphabetic mind knew only one logic, the **Logic of Life.** To this logic it aimed to aline its ideal work. The Tree of Life was to it the Tree of Knowledge. Living implied knowing. The tree of knowledge of Good and Evil had no existence in pre-paradisal days. It was a later intellectual growth or invention. Its fruits filled the thinking mind with delusive, abstract and contradictory ideas only in post-paradisal days when self-sufficient thought had abandoned the work of life and had set up an ideal workshop for pseudo-creative work to ply its own ambitious trade.

The mind, while thinking objectively and naturally, looks upon existence as **stuff alive** and **stuff gone dead;** that is to say, it sees the stuff of existence either in animated form or in devitalized form. And it knows intuitively that life is a process of digestion, which animates the stuff of existence and fills it with more or less consciousness; while death is the result of withdrawal of consciousness from the visible stuff of existence. And it also knows that this withdrawal of vitality or consciousness is not any annihilation of it, but a separation of the invisible conscious energy, called vitality, from the visible form of existing stuff.

Living implies digestion; and digestion is only a way of withdrawing consciousness from the stuff of existence by means of organized powers of digestion and for the purpose of concentrating

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in the other. In these four fields is done the work of preparing the four elementary kinds of nourishment which I have called protein, saccharine, spirit and fat. Antiquity described this work by an uncommon use of verbs to denote the **doing** and not the product produced. The modern mind does not take kindly to descriptions of changeful doings; it thinks only in statical ideas about the effects of the work. Therefore my way of presenting the subject.

The Chinese prefer to use the symbol of a square in a circle instead of that of a Cross in a Circle, in order to depict the special outer and inner work done by the self-conscious, determining mind. From their viewpoint of bi-polar radio-activity, this variation of common usage does not matter. The cross makes for the square, and the square for the cross.

ILLUSTRATION 111.

An Andalusite of the variety known as Chiastolite, here shown in cross-section.

The all-penetrating undercurrents which caused this mineral to recrystalize formed the cross at one pole and the square at the other pole of their activity.

The symbols of Cross in Circle and Square in Circle refer to the same radio-active character-power in Nature; the difference between the symbols is only one of polarity in cyclic counter-movements.

conscious energy within some organic body, and for the use of some organic character-power.

Dying is the elimination of consciousness from the organic form, occupied by the organized powers of digestion. When the cannibal feasts on the body of his enemy, he argues that he puts a higher kind of conscious energy into the derelict's stuff of existence, intimating that he thereby improves the world and mankind.

The human mind naturally knows that the stuff of existence keeps going into the way of living and out of it. It naturally knows that it lives by breathing and eating and by unifying the two kinds of nourishment drawn from the two sources, the heavens above and the earth below. It knows existence to be a changeful process of living and dying,—a metamorphosis of ponderable mat-

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A CELTIC CROSS, DEPICTING THE TO-ORDER-SETTING POWER OF "LIVING REASON," WITHIN THE ELEMENTARY COUNTER-ACTIVE FORCES IN NATURE AND HUMAN NATURE.

Christ appears here with his arms crossed over his chest to indicate the CRUCIAL POINT of his to-order-setting genius.

The sculptured figures in the panels of the cross illustrate the Bible stories which deal with the evolution of mind- and thought-powers in civilization, and which help to sustain the divine rule of Right and Reason in social life.

..We must not imagine that the agents of divinity, at all times were as silly as many of them are now; that is, all those who mistake Bible-stories to be profane histories and without any meaning which points to the evolution of mind-power in man.

Nor must we imagine that the cross was always considered an instrument of torture and death. The Inhabitants of Great Britain never heard of a punitive cross before the eighth century.

Christianity was not introduced into heathenish cults by proclaiming that God had been nailed to a punitive cross by the Romans. If that plea had been made the heathens would not have taken kindly to Christian faith; they would not have worshipped an immortal life-giving and health-sustaining power which could be tortured to death by daemonized people; and they probably had not intellectual power to understand the spiritual meaning of crucifixion.

The so-called heathens, all over the earth, knew well the symbol of the cross and the idea of the CRUCIAL POINT in determining upon Right-doing; and they also understood the counter-forces which make men deviate from the way of Right-thinking and Right-doing. They understood the necessity of "UP-RIGHT" and the fatality of "SIDE-WISE." They knew that going at a point is either a circling around and toward it or a going straight at it, in either upright ways or in one-sided lateral ways.

The virtues of a determining point in Right-doing are always uppermost in the unsophisticated mind.

Any propaganda which ignored these fundamental understandings in the heathenish mind would not have been acceptable as gospel truth.

ter and imponderable substance,—of devitalized matter and vitalizing energy.

The pre-alphabetic mind asked itself simple questions regarding its coming and going, and the why and how of its existence; and it answered its own questions **after the manner of nature** in simple but picturesque ways.

What is this vitality that comes into the stuff of existence and goes out of it? Conscious energy, diffused through the body of the universe—vitality diffused through the terrestrial and universal atmosphere.

How does it unite itself with the earthy stuff in organic forms

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Illustration 113. Lu Tung-pin Hsien is a personification of one of the eight exponents of the Immortal Reason of Living. These eight exponents were once active powers in human self-consciousness, but the undue development and use of wordy knowledge put them all out of commission. Thus this Hsien, or Saint, has been forced out of active duty in the civilizing business; and now he rests in the mental realm of Shades, a silent factor only in the civilizing instinct.

ILLUSTRATION 113.

While alive and active in human self-consciousness, he wielded the analytic sword with synthetic ties to hold Speaking Thought to both, the consciousness of heaven and that of the earth, for life is a unification of both, and Thought ministering to life must unify the mind's double consciousness of both. He specially labored to prevent thought from fixing his word-vested ideas into the workshop of mind. He was a slayer of the serpents of abstract intellectuality,—of independent lines of learning which did not concern themselves with the ties that bind the human mind to Heaven and Earth; in fact, Lu Tung-pin was that to ancient China which St. Patrick was to old Ireland, that is, a fighter against the established errors of thought.

Over his shoulder he carried the "Whip of Destined Necessity," under which all life has to move in the way of evolution. This whip-symbol the ancient Egyptians borrowed from the Chinese, and they made it a special attribute of their Osiris.

The myth of the eight immortals conveys the idea that civilized mankind would fare better under the guidance of the civilizing instinct, pre-alphabetically evolved, than by trusting to its own thinking and reasoning powers. Trust to faith and not to your uncertain ways of reasoning is the usual suggestion of some of our theologians. The eight Immortals of ancient China, like all Indigetes or Indigetamenta, appear to me like sensible predecessors of Thomas d'Aguino, the author of the doctrine of **Opera superrerogatonis,** and the consequent claim of the church: **Unigenitus.**

of life? It animates it by digestion and weaving of organic tissue. (See Illustration 98 which symbolizes the vitality of the terrestrial and universal atmosphere, a design from ancient Mongolia.)

Illustration 112 represents Chang Kuo Lao Hsien, another old Immortal, who, by the "confusion of tongues," was forced into retirement from the civilizing business. His immortal spirit is entombed in the Yh King. In the dreamy way of the civilizing instinct in which he abides he rides a hybrid between horse and ass, for both typify **motive characteristics**, the one of heavenly, the other of earthy motivity, and Chang Kuo is faithful to both; therefore he rides the mule; that is, he causes men to reason semi-consciously by the forgotten Yh King formulas. So reasoning, the mind can travel "1,000 miles" along the chain of natural causation, and at night it folds up the mule and puts him in the traveling bag.

ILLUSTRATION 112.

The modern Chinaman can no longer understand the Yy King formulas, but instinct, immortal instinct, pre-alphabetically acquired, enables him to think after the **manner** of nature and follow the chain of causation for a long distance.

Illustration 114. Ho Hsien-Ku Shih is another specimen of the Octad in powers of human self-consciousness, which now only figure in the civilizing instinct of the Chinese race.

Ho Hsien ku, the immortal female saint, lover of the Lotus, left the Light of human intellect to retire into the civilizing instinct. She personifies the conceptive power of mind, which brings the service of the eye to the assistance of the ears, in the way of intellectual evolution from living consciousness into the thinking consciousness, and into the intellectual communication of ideas.

She is the artist among the eight Immortals, the inventor of aphonic language, of seal-characters, of ideograms, of iconography, which can make known the unwritten consciousness of life, and bring the written consciousness into harmony with it. But she, too, has retired from the civilizing business. She is dead to the now living powers of the intellect. Art, which can make known the unwritten consciousness of life, is no longer an educator of mankind.

ILLUSTRATION 114.

What is the universe? The universe in its totality may be a living organic whole. The visible world may be the part of its inside. Humanity may be living in its stomach or other functionary part of it. It matters not as long as the mind thinks with due discernment and realizes that conscious energy fills the heavenly sphere and penetrates all things as it does human life, to reanimate deadened stuff of existence. What lives beyond the milky way need not concern humanity; it lies beyond the reach of the human powers of perception. Human thought need only concern itself with the principles of life and death which control all metamorphoses about this earth.

Illustration 115 represents the standard of all educational arguments, between the Boy-genius of Speaking Thought and the Old-man-genius of Spoken Thought. This same subject, which appears here on a Chinese "Cash," is represented on a large temple-sculpture from the civilization of ancient Central America. A copy of that monumental work I have elsewhere shown and explained.

ILLUSTRATION 115.

The Boy-genius argues, if the mind wants to know Nature in its detailed workings with required precision, it must be provided with phonetic means to form definite ideas. Very well, argues the Old-man genius of Spoken Thought. Phonetic means speak ably about the outwardness of things, but they lie to self-consciousness about the inwardness of things. The mind must not discard the aphonic means; they represent the inwardness in its own true light.

Chung K'uei, the Old-man Genius, objects to ruling life by fixed ideas. He is in the business of fighting opinionated insanity and devilish possession. Harmony, peace and happiness can never reign in either family or nation, if ruled by visionary ideality, which is unmindful of life's fundamental realities and requirements.

The Old-man genius of Spoken Thought, the original educator and civilizer of mankind, must correct the Boy-genius of Speaking Thought, that opinionated insanity may not become rampant in social life. If the mind wants to know its own workings and the requirements of its own life, it must study Fact by means of iconography, as well as by alphabetical means. In order to illustrate this necessity the frame of this ideogram is formed of eight ingot-signs.

The bat in the field over the central hole is put there to convey the conventional idea of the Chinese: "Happiness in the family or national household" (the saying "Yin Fu Kuei T'ang") depends upon getting rid of fixed ideas and opinionated insanity, ordinarily called "driving out devils."

On the reverse side of the "Cash" appear the five animals which typify the intellectual tools. Remember the Pentateuch, the Mosaic evolution of the five intellectual tools. It connects itself with Chinese ideas here depicted.

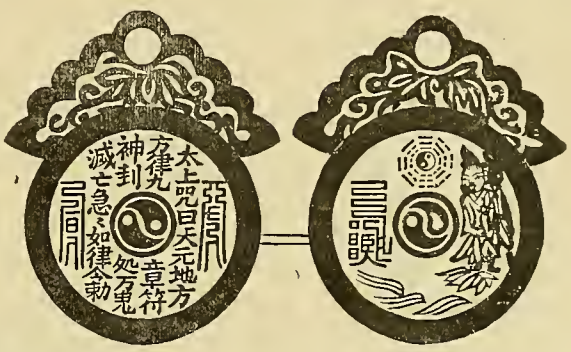
What is the creative character-power? The indivisible double-activity of individual character-power in the universal field of conscious energy,—the well-balanced and all-balancing Yang Yin energy of the individual TI and the universal Shang Ti, by the flamboyant sphere symbolized. (See Illustration 99.) The Chinese represent the atom-idea of the earlier Greeks, the One-in-All, the All-in-One, as a radio-active biaxial sphere.

How does creative character-power proceed to go into life? It proceeds digestively to draw consciousness out of the stuff of existence. It puts this consciousness into organic form and concentrates it into special faculties under the control of a special, determining character-power.

A TAOISTIC PROPAGANDA "CASH."

The modernized doctrine of the Tao, it seems, tries to hold firmly to the old-time conception of the Tai-kih and the Pa Kua trigrams. The Tai-kih appears three times on this "Cash," or intellectual currency. The Pa Kua encircles the little Tai-kih on the right hand face of the "Cash." The arrangements of the trigrams comes near being that of Fu-hsi.

ILLUSTRATION 116.



The inscription on the left hand side of the Amulet reads: T'ai Shang's precept says: "Heaven is round and the Earth is square." This is a quotation from King Wan's Yh King, which means that the naturally reasonable (Heavenly) way of thinking follows the cyclic way of evolution, and while the earthy, or systematically sensible way of thinking is unnaturally square or mechanical, and going into one of the four possible extremes of counter-active force.

The inscription further suggests that only six rules and nine regulations are required to keep the Taoist's Free-agency-will from going into excesses. The Taoist's mind assumes that it knows of its own immediate or innate consciousness what is right and reasonable, just and fair; and that it need not to be legislated or even instructed into righteousness. "Wherever the spirit of Tao dwells, there non-conforming errors and spook-ideas will leave. Let this Gospel-truth go throughout the world, and act accordingly, now and ever." Modern Taoism is much of an advertising fake.

Modern learning which pretends to deal with natural causes and consequences is a fake at all times in all lands, if it relies on phonetic language to tell the truth. The truth cannot be so stated, if the eye is not made to assist the ear. The truth which can be put into the confines of words is not the Living Truth,—it is not true to life or its requirements.

How does digestion proceed? By breathing the living energy from the heavens descending, and by eating and re-animating the

Illustration 117 shows the double-cup thunderbolt and arrow of principle, called vulgarly Wu chu, on the right hand face of the medal or "cash."

The phonetic value of Wu chu, 5 cents, or a unit of money, has its accompanying aphonic value, being presented in seal-signs. The aphonic value of Wu chu is that of Yang Yin, as the unit of thought. Sun, moon and stars appear in the field to indicate the world-wide application or value of the Yang Yin idea. Sometimes the Wu chu-sign has a sort of manna-shedding sign above the square in the cash to denote the greatest of all values. On the reverse side of the Cash appear the five animals symbolic of intellectual tools by language evolved in man's natural knowing powers. These animals are placed into four fields to conform to the four principal branches of development. Thus placing them makes a tetramorph of the design, but it places the monkey of knowledge into the same category with the serpent of secondary knowledge. If this formula were applied to the Old Testament, it would make one book of Numbers and Deuteronomy. The other three animals in the fields are Dragon, Tiger and Bird.

King Wan's arrangement of the Pa Kua, Tai-kih, Tetramorph, Tchy and polarity.

This ideogram is intended to represent the changefulness not only in any and all individual digest-centers, but in the entire chain of eternal causation.

ILLUSTRATION 118.

The Tai-Kih, or radio-active digest-center, appears in the central circle as two tadpoles working about two axes, and alternating about one determining, changeful focus. The changefulness of the central foci and the four poles are first indicated by the four symbolic animals representative of the four protozoan types of life and of the Tetramorph in man's intellectual powers, and this changefulness appears again in the Pa-Kua or or eight trigrams.

The solid lines in the trigrams represent the all-

deadened life from the earth ascending and by unifying the products of breathing and eating.*

Why does nature do this work of life? Living is the purpose of consciousness in the stuff of existence.

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controlling conscious energy or vitality; the broken lines represent the outer and the inner workings of special sense in all life, mind and thought.

The Tchy or animal circle represents the character-powers in the special field of consciousness,—the periechon.

The words in the outer circle tell King Wan's idea of the adjustment of individual radio-active character-power to the world-wide field of conscious energy. More definite description comes in Chinese cosmogony. There is far more to the Chinese conception of the Tai-Kih than there is to the present biological ideas of nucleus and centrosome.

The creative character powers active in nature constantly change in the way of cyclic development. Four points of polarity are used by the Chinese to indicate the cardinal changes, and a varied arrangement of trigrams symbolizes the accompanying changes of the main factors in natural causation. King Wan's polar indications of cardinal points differ from Fu hsi's. This difference may not be error; it may refer to the difference in polarity between the powers of creation in nature and the corresponding powers in man's superstructural intellect. The growth of the intellect is a result of counter-procedure to the growth of nature, and this counter-procedure may not hold the same polarity.

Changeful predominance and subservience in the dual powers which characterize the stuff of existence:

King Wan's arrangement of changefulness in dual forces.

Yin predominating over Yang.	Yang predominating over Yin.
Kwan ䷓	Chien ䷀
Sun ䷸	Chen ䷲
Li ䷝	K'an ䷜
Tui ䷹	Ken ䷳

Arrangement of Fu hsi, showing regular changefulness in the dual forces of nature.

Yin predominating over Yang.	Yang predominating over Yin.
Sun ䷸	Chen ䷲
K'an ䷜	Li ䷝
Ken ䷳	Tui ䷹
Kwan ䷓	Ch'ien ䷀

The arrangement of trigrams shown in Illustration 119 indicates the **predominance and subservience** of the dual powers (Yang Yin) in the compound of existence.

In the activity of the earth, Yin (the carrying-together power of radio-activity) predominates over that of Yang (the carrying-apart power of radio-activity). In the activity of the sun, the reverse is the case; it is a distributing focus in its outer activity and it exerts no predominant influence of attraction upon the surrounding field. Things in the immediate environment of the sun have little tendency to gravitate toward its center. Yet the sun's body has subservient powers to "carry together."

What characterizes the stuff of existence? Yang Yin, counter-active tendencies, universal and individual. Yang Yin is the stuff of existence, say the Chinese. Yang Yin is universally counter-active semi-conscious energy and individually conscious power to check, adjust and control this counter-active energy.

How is this checking, adjusting and controlling done? By living—by putting the counter-active energy within the confines of living organic forms for as long a time as the living form may retain its special character-power to interact and unify itself with the heavenly all-encircling conscious energy, the world-wide power of creative character. Going into life is acquiring universal consciousness and individual character-power and the ability to unify

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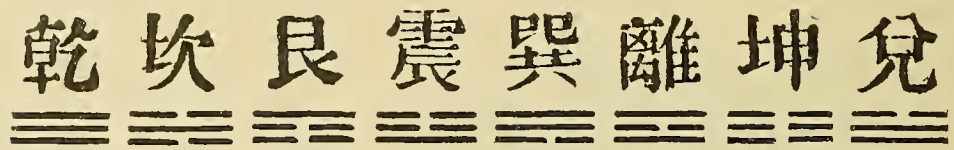
In the nature of woman Yin predominates; and Yang in the nature of man.

The human mind is always a compound of Yang Yin, sometimes more of the one, at other times more of the other. Sometimes it is more receptive; sometimes more responsive; but double-active it is always, both in reception and response. The balance of mind is swaying from one side to the other. Therefore can the mind respond with yes or no to propositions received from without or the impulses emanating from within itself.

ILLUSTRATION 120.

King Wan's arrangement of Trigrams, denoting the regular changefulness in digest-centers. These trigrams are here strung out in a line for purpose of explanation.



Ch'ien	K'an	Ken	Chen	Sun	Li	K'wan	Tui
Heavenly Father or Field of Conscious Energy	Second Son	Youngest Son	Oldest Son	Oldest Daughter	Second Daughter	Earthy Mother or Periechon	Youngest Daughter
	NORTH		SOUTH		EAST		WEST

The principles which control digest and ferment centers control all of nature's activity, and they apply to mental and intellectual workings as well as to physical changes in nature.

The Logic of Life is that logic of thought which should control civilization. Therefore are the Yh King formulas for right-thinking, which aims to insure the right kind of civilizing work, based on the Trigrams, depicting the changefulness in the orderly workings of nature.

The polarity of digest-centers adjusts itself to the field of conscious energy.

both. Going out of life is losing this consciousness, character and unifying ability.

Where does life begin? In the concentration and assimilation of conscious energy in and about radio-active digest-centers, which work reciprocally and toward organic arrangement in character and form.

Fu-hsi puts the Ch'ien trigram at the south pole of that field and the K'wan trigram at the north pole; Li to the east, and K'an to the west.

It may be difficult to study out the workings of these Chinese formulas for right-thinking, but without the use of these formulas or other formulas fashioned after them, the mind will probably never learn to reason sure-footedly from natural causes to natural consequpences. See the examples from the Bible and the Egyptian Book of the Dead, given in the **Prolegomena to the World Process.**

1. 子 Tzŭ appertains to the Rat 鼠 Shu.
2. 丑 Ch'ou „ „ Ox 牛 Niu.
3. 寅 Yin „ „ Tiger 虎 Hu.
4. 卯 Mao „ „ Hare 兎 T'u.
5. 辰 Shên „ „ Dragon 龍 Lung.
6. 巳 Ssŭ „ „ Serpent 蛇 Shê.
7. 午 Wu „ „ Horse 馬 Ma.
8. 未 Wei „ „ Sheep 羊 Yang.
9. 申 Shên „ „ Monkey 猴 Hou.
10. 酉 Yu „ „ Cock 鷄 Chi
11. 戌 Hsü „ „ Dog 犬 Ch'üan.
12. 亥 Hai „ „ Boar 猪 Chu.

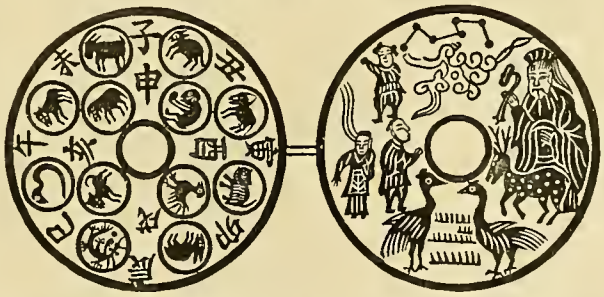
The character-powers in the Tchy, or periechon, are represented by certain animals here enumerated and depicted.

The aphonic character-values and the phonetic names used to depict them appear side by side, just to convey a preliminary idea. The cardinal or evangelic branches, among these twelve, are represented by Yin, tiger; Ssu, serpent; Shen, monkey; and Hai, boar.

The character powers active in the immediate field of digest-centers are specially arranged, **after the manner of nature,** in a duodenary circle; sometimes like that which the moon describes in its circlings about earth and sun; sometimes otherwise.

Illustration 123 shows the former arrangement. Illustration 122 shows the latter.

ILLUSTRATION 122.



On the reverse side of this cash appears Fu, phonetically the god of happiness; aphonically the determiner of well-ordered life. Beneath him the spotted deer, typifying social organization. The three lines of his descendants appear as three boys, opposite to him. The seven star sign, Pei Tou, is shown in the field about the cloud sign. Two water-fowls, storks, below, typify life close to the bosom of nature, and the fact that this life reaches a happy old age.

What is the organic form of life composed of? Families of digest-centers in one housing enclosed. (See Illustration 100, symbol of the turtle.)

What is life? The stuff of existence brought under control of the organizing character-power.

What is death? The stuff of existence moving away from the

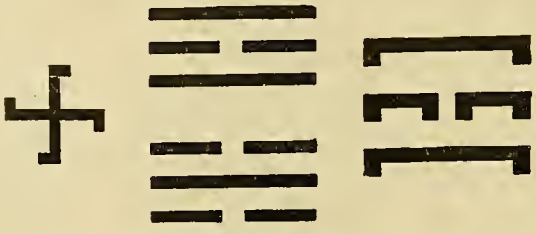
ILLUSTRATION 123.

The twelve branchings of radio-activity within and about all centers of life are here shown among cloud-signs; that is, the symbols of earthy intellectuality which are one-sided and word-vested, obstruct the natural sight of the living mind.

On the reverse side of the medal appears a bird, probably typifying intellectuality, among the so-called "four friends," or branches, of harmonized life: Pine (Sung), Chrysanthemum (Chue), Orchid (Lan), and Bamboo (Chou). The four words represent the four-fold procedures of the living principles,—a Chinese idea approaching that of the Tetragrammaton.

Next in importance to the four cardinal branchings in radio-activity, comes the elevation of character-power in the digest-center during the redigestion process in the higher organic bodies of animal and mind, for this redigestion makes mind-power and thought-power. This elevation of character-power is aphonically represented by the so-called **Tree of Life**, or by the Jacob's Ladder.

ILLUSTRATION 124.



.. Illustration 124 shows Two Trigrams, Kan and Li, representing the predominant character-powers in going into physical and into mental life, after a Japanese conception. To the left the Li trigram is shown in ingot form; to the right this form is shown as a gammadion or walking cross to denote the initial step to procedures of mental evolution.

control of organizing power or in some way deprived of conscious energy.

Two Ideograms Known as Tree of Life or Jacob's Ladder, illustrate the evolution of human character by influence of language.

ILLUSTRATION 125.

ILLUSTRATION 126.

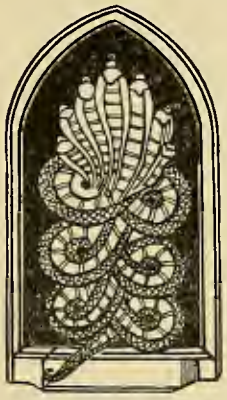


Illustration 125 shows a Japanese idea of such a Jacob's ladder. The human figures with their heads pointing toward a central point of inspiration from the inner workings of life. These human figures personify mental power as moving within the **Tree of Life.** Life has a double character-power or double soul; it makes for organic growth and seed-energy in both physical and mental ways. The mind-power out of which intellectuality is eventually evolved is nourished in opposite ways through biaxiality of digest-centers from those of body-power. In the way of evolution these opposite ways produce different kinds of organs. The mental organs become a superstructure to the physical organs. The Tree of mind and knowledge comes to grow within the Tree of Life, as the flowering orchid may grow on the fir, if we may illustrate the fact by a Chinese figure of speech.

Illustration 126 shows a Brahmin representation of the same subject. The lemniscatic windings of the serpent are echosen to depict the cyclic windings and risings of intellectual evolution brought about by the two main types of language, the aphonic and its figurative branchings and the phonetic and its grammatical branchings. The serpent always symbolizes **Lines of Learning** in distinction to the natural growth of mind-making life. This distinction must be made for the purpose of noting the superstructural counter procedures to the elementary counter-procedures of life.

ILLUSTRATION 127.

Thinking with natural discernment, and critically examining or critically destroying the work of thought, was aphonically represented by Dragons, in ancient China.

All the Dragons are not omens of evil. All the Serpents are not deluders of the intellect

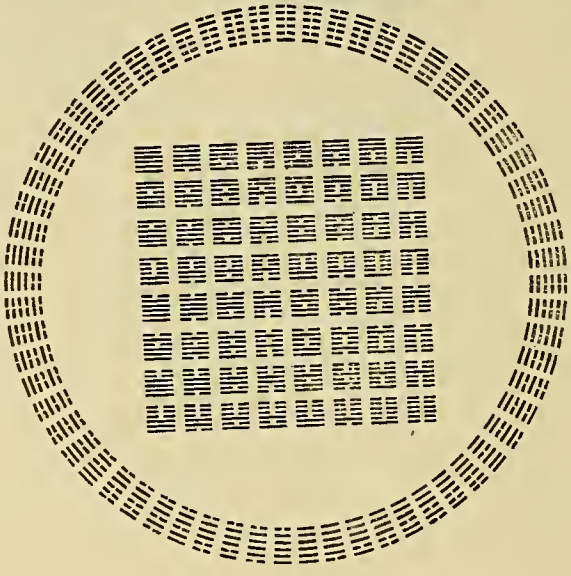
What becomes of the conscious energy and character-power which has withdrawn itself from the devitalized stuff of existence?

There may be intellectual dragons who despoil the Heavens, but then there are dragons which do homage to Heaven and Earth and guard the welfare of life, speaking figuratively.

The Dragons in Illustration 127 may be assailing the radio-active digest-centers shown at their heads; or they may be aiming to intellectually represent the fact that critical thought has its virtues and vices.

The common conception of the Dragon-glyph in ancient China referred to the necessity of critically examining the merit or demerit of all opinions in their bearings on social life. "Do not trust to opinions, especially not when they emanate from learned heads." Learning which deals in opinions and theories is the deluder of the human mind and the destroyer of civilization.

ILLUSTRATION 128. .The Logic of Life and Death, mathematically formulated in the Yh-King Hexagrams.



The trigram formulas refer only to the primary factors in the evolution of the powers of life, mind and thought. These factors pass through greatly diversified branch-development. So passing, they call for more and more diversified formulas, in order to enable the intellectual powers to follow the causes of this development and to avoid falling into the common error of guessing irrationally and of inventing artificial causes to account for natural development.

Studying the diversifying of these formulas of natural causation is much like going into higher mathematics; in fact, the Yh-King formulas are the mathematics of life. All other mathematical formulas which are known concern only non-vital aspects of facts, and they never fit the active causes in nature.

The diversified Yh-King formulas look discouragingly complicated; but life is so complicated. The formulas cannot be otherwise. The physical workings of life and mind go into greatly diversified branch-development before

It stays in the heavenly sphere, a radio-active reanimating power of the earthy stuff, or of similar offal of life anywhere in the universe.

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the intellectual powers of man are evolved; the powers which enable him to do civilizing work. To do civilizing work by guessing at causes and consequences will never be a success. It never has been even a temporary success during historic ages. It is not any such success in this age. It is making toward failure even now.

The **logic of life** we must learn in order to make civilization a success. It is easier to study this logic by well-prepared formulas than without the help of formulas. The formulas given in any sacred writing are only makeshifts; they are only verbal elaborations of the Fu-hsi formulas; just as is the Yh-King, the Chinese book of changeful causation in the triple process of life, mind and thought.

The study of sacred writings never did serve civilization to any great extent, because it was pursued without any knowledge of the original trigrams. The mind must be held to the originally simple workings of causation in order to know causes at all. Therefore, let us keep at it.

Illustration 128 represents a highly evolved formula of active causation in the mental workings which control civilization. After Mohl's Yh-King.

I reproduce this diagram to give a preliminary view of the great branch-development which thought must follow if it wants to hold to the **Logic of Life**—if it wants to proceed **after the manner of nature**—if it wants to make Right-thinking its business, so as to serve civilization rationally.

I, myself, have not gone deeply enough into the study of the hexagrams to explain their workings in detail. The Yh-King presumably gives this explanation. I know only the rudimentary workings of the trigrams. What I know of the further workings is only what I have found in sacred formulas.

The physical workings of the double-active character-power, as given in the Tai-Kih or as they occur in the nucleolus and centrosome, branch out; they go into the Li line, and Li carries Ki with it, that is to say: The mind-making power of the nucleolus, when going into special mental and intellectual evolution, must employ special means to do this work; and these special means are of two kinds; they have character and form.

Just as vital powers of nucleolus and centrosome make seed energy for physical propagation, which branches out into the evolution of sperm and egg, each embodied in its own housing, so do these powers generate special mental functionaries to work toward the higher evolution of the organoid. This special generation is done in the way of redigestion, much after the manner in which seed-energy is evolved. A special power of digestion is evolved by drawing on special nourishment in the physical cell-community,—the organic body composed of organic corpuscles. The special power is that of the **Light-bodies**. Illustration 88. They live mainly on the substance of Light-heat, egested by the physical digest-centers in the cell-community, and forming their special periechon. On the one hand they evolve the leucocytes, or white corpuscles which work as redigestive free lancers among the blood corpuscles; but on the other hand these Light-bodies organize to form ganglion-cells and lymph-characters, which I call **nervine** temporarily.

The lymph-characters are biaxial cells, but only their nucleus and nucleolus ever become visible. The centrosome power is a minimum and not visible in ganglion-cell, for body building is minor work in this cell-life, as it is in the embodying of seed-energy, in which the centrosome, also, is not usually visi-

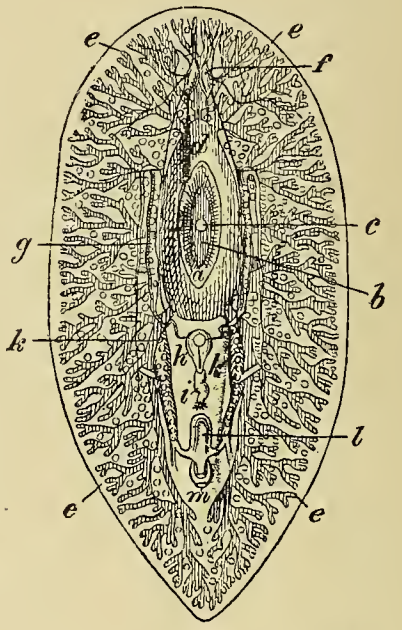
These are about the questions which the mind, not sophisticated by alphabetical instruction seems to have put to itself and

ble. But it is there and active as an axial power, even if it does not build visibly about the axis; it builds the housing of the nerve-power.

All digestion is necessarily biaxial. It cannot be otherwise. It must take in four kinds of nourishment and produce four types of living energy. It could not divide and propagate itself without four-fold branching powers.

The lymph-characters or cells, propagate on the same principles on which the feminine seed-energy is formed ,Illustration 95,, excepting that the diapheromenal energy, which is pushed out of the parent-cell is not entirely. separated from it, but stays connected with it, and by budding causes nerve-fiber to grow into dendriform.

ILLUSTRATION 129.



Tissue-building is not always an elementary knitting lengthwise and crosswise. It works preferably into tree-form, both in development of physical and mental powers. Illustration 129 shows a Polyceles laevegata. It is a headless digester, not equipped with special sewage-organs, and actually bisexual,—a hermaphrodite. It is, of course, more highly organic than are the lymph-characters, and therefore not like them, but in its body may be seen the first stage in development of mental organs. It is shown in the ganglion and nerve fiber, which make for head and brain-power.

A is the opening of the mouth. B, interior of the mouth. C, throat-passage to the digestive organs. D, the central organs of digestion. E, ganglia, the first stage of brain development from which start the nerve-fibers. G, seed-making organs. H, seed-storage organs. I, masculine organs. K, feminine organs. L, organs of copulation. M, organs of propagation.

The mind-making ganglia have digestive life, apparently more or less independent of the bodily powers of digestion and propagation. They do not live on any special digest-centers of the body; they draw only on the perichon of the bodily digest-powers within the organoid, and, of course, also on the field of conscious energy, which always surrounds and penetrates the entire body of the animal.

While the ganglia and nerve-fibers usually propagate themselves by budding in each organ, they also propagate by special, rapid self-division of special seed-energy.

The ganglion-family composed of mental digest-centers forms special seed energy. This energy differentiates in the organoid so as to evolve all sorts of lymph-powers and to perform all sorts of mental functions in the organic body.

answered for itself, as the subject of life and death seem treated in mythical stories and ideograms.

To the mind, which thinks objectively, after the manner of

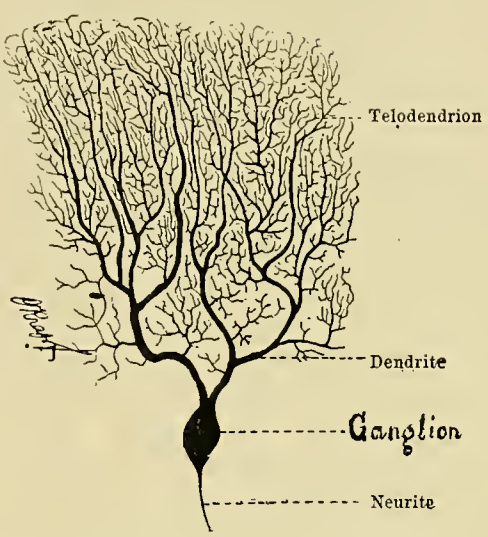


Illustration 130 shows the dendriform of nevre-tissue grown from the ganglion, known as Purkinje's eell, in the cerebellum of a rabbit. It is here 125 times enlarged, after Boehm. The entire nerve-tree is built up of nervine; that is, of individual radio-active character-powers and not of any unconscious chemical substance. Every part of it is double-aetive — receptive and responsive in two ways, one mainly collective, the other mainly dispersive, (Yang Yin).

The branchless neurite is predominantly ingestive, sympheromenal, (Yin yang), like the root of a tree.

The **dendrites** are predominantly egestive, diapheromenal (Yang yin).

The telodendrion interacts ingestively and egestively with the field of conscious energy; it works on the principle of wireless telegraphy, but in a vital way by digestion. Every radio-active part of the **nervine** interacts by ingestion and egestion with the periechon of the loeal digest-eenters. **Therefore does it feel what takes place in the physical body.**

The whole nerve-tree lives by digestion as do all forms of life. The forms differ, because they contain different character-powers which do the special digestive work by assimilating different kinds of nourishment, by different polar activity. The senses are all evolved out of differentiated digestive character-powers.

The character-powers in the field interact digestively with the character-powers in the sense-tissue. This interaction in its outwardness may be a mechanical contact, but in its inwardness it is a digestive process. It is digestion which converts the mechanical touch into consciousness.

Nothing in existence ever acts at a distance. All things interact with each other only through and by virtue of the intervening and all-connecting fields. Special digestive branch-development produces special radio-active character-powers within the organic body, and these powers through their

nature, living means to draw consciousness from the stuff of existence and to put it into organic form and under control of a special character-power which works in harmony with world-wide consciousness.

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periechon make special conscious interaction, special sense perceptions and conceptive knowing, possible. It is the conceptive knowing of actualities in the changefulness of natural character-powers, their causations and all consequent metamorphoses, which we have to make our own. To attain this end we need formulas, which re-connect the many distant branchings with the original biaxial activity in all character-power. The trigrams and hexagrams furnish these formulas. The broken lines always refer to the branchings and their lateral workings. The solid line always refers to the upright axis of TI; that is, to the to-order-setting, unifying, animating character-power in the field of conscious energy; but this field has its representative in the self-conscious determining power of the human mind. Therefore we may say the solid lines represent the Reason of Living, as primarily given in the self-conscious determining character-power of man, etc. And we may further say that the broken lines represent special inner and outer sense,—inner sense which does the organizing within the organic body, and which we sometimes call common sense; and outer sense by means of which the organism adapts itself to its environment. This to-order-setting between outer and inner activity has its extensions into the workings of the intellect and into the work of social organization. The process of human life is a three-fold process; and therefore the elementary trigrams must go into multiple branch-development, as does life, in order to fairly formulate the three-fold process.

ILLUSTRATION 131.

Illustration 131, Fu hsi, who formulated the Logic of Life in the Yh King Trigrams, and gave them practical application in the intellectual determinations which govern or should govern civilized life. The trigrams on the tablette appear drawn in accordance with King Wan's scheme of polar-

The ancient Chinese depicted the mind-making process in organic life by the life of the orchid in order to show that it has but little rooting in the material workings of nature and lives mainly on the vitality of the atmosphere.

The steps of evolution in mind-making antiquity generally depicted by **Trees of Knowledge** growing in the **Tree of Life.** These Trees of Knowledge are often called Jacob's ladder.

THE ORIGIN OF ALL THINGS, ACCORDING TO THE FU-HSI SCHOOL. AN ATTEMPT TO DEFINE YANG YIN, THE ONE ELEMENTARY DOUBLE-ACTIVE CHARACTER-POWER IN THE STUFF OF EXISTENCE.

The sibylline school, which evolved the religious consciousness of the thinking world, had its origin in the Fu-hsi school of immediate knowledge of Fact.

The great branches of the Sibylline School did not usually go into pre-cosmic causation.

The Brahmin, Zoroastrian, Egyptian, Hebrew, Christian and other branches of the Sibylline School began their cosmogonies or stories of evolution, vulgarly known as creation, with the creative word, that is with the origin of intellectual development in mankind. According to these stories the Genius of Creation gave primitive man the organs and powers of speech and thereby caused the evolution of human nature out of the primitive animal nature of man.

Language, in all these great cults, figured as the original cause of humanity and of civilization.

Looking upon the creative word or language as the original cause of man's creation may be true enough, but it is not going far enough back to the original causes of evolution. It has deceived many thinkers, and it deceives the best of catholic thinkers even now. It leads to mid-air idealism; to the assumption that the world is made out of nothing. Two errors are to be avoided: That of materialism and that of idealism. Matter and mind are only aspects of fact; they are not elements of nature's activity. Never forget the subject of Trichotomy. Body, mind and thought are only three aspects which the analytic mind takes of Fact. Elements of Fact, as they are in themselves, must not be confounded with matter, mind or thought, nor with any other aspects of Fact.

Our language has no words for the active, elementary stuff of existence; nor has any other language known to me.

The Greek words **hyle** and **proousios** will not answer; their one-sided meaning leads to hylozoistic pantheism; or to ideal mid-air misconceptions of Fact. Therefore, must we learn to define Yang Yin, the words of the Chinese Fact-knowers.

These words represent the elements in our immediate consciousness of life and of death, and not merely any word-vested thinking consciousness. They draw the attention of thought to the fact that all nature, in self or not-self, is double-active. To the double-active way of living, must we adjust our thoughts if we want to arrive at Fact-knowing.

The ancient Chinese Fu-hsi School, having formulated the original Tao, had not only taught this Truth in advance of all historic learning and sacred writings, but it had given definite form to that type of language, which the Genius of Creation, while still active in the human mind, had originally evolved to civilize mankind; i. e., the figurative **Old Man type of Spoken Thought** in distinction to the later alphabetical and terminological type, which is mythically represented as the **Boy-genius of Speaking Thought.**

The former type made language the immediate power for conveying the consciousness of life and the predominant factor in the conveyance of ideas, and it made thought the subservient factor in the intellectual workings of the mind.

The latter type made thought the predominant factor in intellectual development, and it made language the determining power to the end of knowing ideas.

Both types of language properly working in harmony, properly unified, make the intellect an organically working power—a holy ghost, speaking scripturally; that is, a thought-power which can hold to the organic workings in the chain of natural causation, and which can understand both the reciprocal principles of life, and the relative principles of death. The Fu-hsi school had preserved the old-man-type of language, so that the intellect might never become detached from the living consciousness of natural causation. For this purpose it had formulated the original Trigrams of the Radio-active digest-center, and it had explained the workings of these formulas by mythical stories so that the living foundation of knowledge concerning the chain of natural causation might never be lost sight of in ages of advancing intellectual

branch-development. This advance goes usually into detailed knowledge of nature's diversified work, but away from consciousness of original causation.

The Difficult and Troublesome Definition of Yang Yin.

In order to know something more about the facts of existence than science and philosophy have told the world during historic ages, we must begin by giving ourselves a better footing in fact-knowing than scientific thought possesses or puts to use. We must elucidate our immediate consciousness of life and thought—the elements of natural causation, inclusive of all evolution. Scientific thought cannot reach these causes. It cannot go beyond sense-perceptions. It cannot trace the consciousness of the senses back to the original causes which evolved it. In fact, it cannot deal with the active inwardness of things by its artificial logic and rhetoric.

Science builds its systems of knowledge and learning, as historic thought has always done, upon sense-perceptions. It generalizes and particularizes its sensible experiences in the subjective way of thinking, and calls its conclusions of thought "truths"—relative truths.

Relative truths are never true to the causes of life and of death. The **Truth** which is so true must be evolved out of living self-consciousness in that objective way of thinking which holds thought to the regular chances in living consciousness, and through them to the causes of nature's inner activity. The elementary, universal and individual workings of these causes the ancient Chinese called Yang Yin.

The definition of Yan Yin is the fundamental explanation of radio-activity and of counter-activity in the inwardness of all existing things; it is the ideal representation of the elementary and indestructible characteristics of existence.

To the Fu-hsi School we must go to retrieve humanity's lost knowledge of original causation, and the definition of Yang Yin, the one double-active and changeful element of all existence.

The school bases its work on the preliminary definition of Yang Yin, and thereby gives thought a natural footing in the im-

mediate consciousness of the elementary and indestructible cause of activity which characterizes the stuff of existence.

The original definition we must now try to resurrect in all its bearings on Fact. Yang Yin is not matter; it is not mind, it is not physical force nor mental energy, but it contains the tendencies to produce all and everything. It contains the tendencies to the evolution of capacities of all there is doing in nature.

It may be necessary to say, Yang Yin means all that which primarily characterizes the stuff of existence. The Chinese now content themselves to so define the words; but that definition is not final. The question arises: What does primarily characterize existence? He who wants to know must struggle through a few more dry pages.

If we cannot make elementary characteristics clear to ourselves, we will not be able to know original causes. We will not be able to know **Fact as it is in itself.** We will not be able to know from whence come the many religious and scientific ideas; nor will we be able to determine how much truth there is in them.

No full definition of Yang Yin can be given by means of our terminology, for it is purely analytic and not comprehensive; besides, it is largely statical, and lacks all truly vital character. The words at our command, however, may be used so as to furnish sufficient hints to the self-conscious mind to enable it to arrive at a clear knowledge of the subject, if it can bring itself to think objectively; that, if it can think beyond the definitions of words into the actual character-powers which produce all metamorphoses in nature. In order to make objective thinking a success, the words used must be taken as nothing more than hints at causation.

Yang Yin represents that which is universal and individual (not general or particular) in the chain of natural causation—in the radio-active ferment- and digest-centers of that chain.

The conception of Yang Yin is a comprehensive act of thought, and not an analytic one. There is nothing in our way of thinking which approaches it. Our mental powers are not used to thinking comprehensively. Therefore we cannot well bring ourselves to think all the forces and powers active in nature into one double-active element such as Yang Yin represents. Analytic thought

cannot clearly conceive anything as double-active; for it itself is a single-active instrument of mind.

Double activity, in its focalization and constant radio-active changefulness, as comprehended in the Chinese conception of Yang Yin, is a difficult subject to conceive in our way of thinking. I will make several efforts to make the subject clear.

Think of Yang Yin as the elementary, formless, but mobile stuff of existence; mobile not only by its physical counter-active forces, moving in lineal and circling ways, but also by radio-active tendencies to consciousness, moving and straining in similar ways. Think of it as strainings according to elementary principles of procedure, making for both life and death—for physical mobility and conscious motivity. Think of it as a very thin jelly or as any very thin protoplastic stuff trembling by reason of its own radio-active tendencies and capacities, restlessly counter-active within itself. Think of it as that which the universe would be, if it were in some way reduced to an impalpable, homogeneous stuff, and assume that the forces and powers, now active in the universe were not eliminated from it by this reduction, but were only converted into elementary tendencies to mobility and motivity which would reproduce the universe in course of time, such as it now is. Such reduction of all existing things would restore the original stuff of existence; i. e., the elementary Yang Yin.

Of course, the universe as a whole could not now be so reduced by any cataclysm; but in part it is being so reduced approximately, by fiery and watery restitution of sewage matter, such as occurs in dissolution of solar bodies and in the exhalations of planets, and in the interaction of this reduced, perishable matter with the two imperishable fields—that of substantial undercurrents and that of conscious energy. There is some approximately elementary stuff always somewhere in the universe.

Having thus thought theoretically of the reduction of the universe and Yang Yin, assume that all which remains of mobility and motivity in this reduced stuff will again characterize all things, when evolved out of it. This mobility and motivity is the original and imperishable nature of things, which presumably is and remains always active in all things; it is Yang Yin. No matter what state of aggregation or dissipation the stuff of existence may be in;

no matter what vital or mental development it may be in; Yang Yin always characterizes its activity. Yang Yin is active in the human consciousness as well as in inert matter; it is radio-active and it characterizes the four universal features and the three-fold individual phases of all causation.

The consciousness of Yang Yin holds the human thinking powers at all times to the double activity of natural causation. Yang Yin moves with the causes of evolution, into the Height of organic development, into the Depth of seed energy, and into the Extent of all organic branch-development of life.

Yang Yin personified is Ianus Qudrifons. It represents the four features or principles of procedure in radio-activity.

Yang Yin is symbolically represented in the Pyramids, as connecting the all-underlying principles,—with all three phases of causation.

Yang Yin is glyphically represented in the Sphinx to draw attention to the connection of the ever-present fundamental double activity, within the changeful causes of evolution.

Ask what is always and everywhere active in nature?

Just one thing—"Yang Yin," answers the Chinese sage.

This Yang Yin we will describe for the present as the indivisible and radio-active counter-tendencies to the evolution of double-active capacities; and as something which strains to carry together; something which strains to carry apart, and something which strains to set to order. This description comes near the original idea of the Greek Atom. It ignores, however, the four

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Illustration 8 shows an ideogram which is intended to elucidate the elementary activity in nature—the Greek idea of diapheromenon sympheromenon, which is in fact only a different name for Yang Yin.

Life's changeful way passes through nature's elementary counter forces; that is, it moves along between solar and planetary extremes which exist throughout the universe, and so moving it causes the individual character-powers of life to constantly interact with and counteract the elementary counter-forces.

The elementary double-active character-power of life in that ideogram is represented by two faces, one of which appears as diapheromenally radio-active; the other as sympheromenally so. These two faces represent the individual to-order-setting power in nature's elementary activity, much after the manner of the two tadpoles in the Chinese Tai-kih.

That ideogram as a whole is an analytic representation of the Heraklcitean "Anathemeasis": The counter-straining of sewage to sustain life and to absorb its offal.

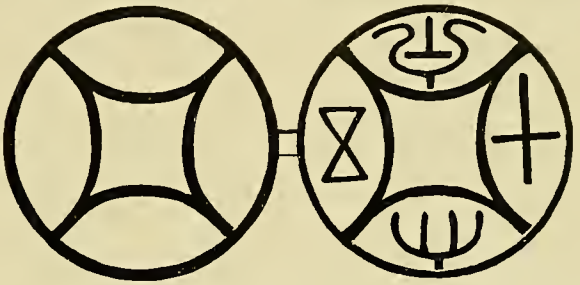
fundamental procedures, but it unites three phases of activity into one idea.

All these three phases refer to one act. They are three aspects of that which characterizes all radio-activity.

When a digest-center in animal economy ingests and egests, it also sets something to order in the way of life, and so it does this one thing which the Chinese call **Yang Yin.** This particular meaning of Yang Yin, we had better remember by the seal-sign called Wu Chu, 5x10, which appears commonly depicted by hour-glass and cross. (See Illustr. 133.)

ILLUSTRATION 133.

Illustration 133 shows a Cash issued by the Wang Mang dynasty about the beginning of our era. The ideograms on this Cash connect themselves with the conception of Yang Yin. This Cash is representative of "honest money" of the kind which antiquity used to symbolically represent "Spoken Truth" of the learnedly standardized type as a medium to the exchange of civic rights and duties.



The ideographic inscription has a definite phonetic value and an indefinite aphonic value.

The Chinaman wouldread the phonetic valuefrom top to bottom, right to left: Ta ch'uan Wu Shih. Great coin, five times ten, or fifty.

The ideographic characters have an additional aphonic meaning which goes beyond the literal meaning. The upper sign (Ta) is the Manna sign, symbolic of the human consciousness of the principles of Life and Death descending from the world-wide field of conscious energy, to sustain and set-to-order the workings of human consciousness. The lower sign (Ch'uan) is symbolic of the earthy growth of human consciousness, if properly sheltered from the excesses of discursive thought.

The sign of the double cup (Wu), to the right, symbolizes the changeful counter-activity of the two halves bound up in Yang Yin.

The cross (Shih) represents the whole to-order-setting value in Yang Yin.

The four fields on the reverse side of the Cash represent the "Honesty of the government in all four cardinal directions." If the four types of social workers observed the same fundamental principles they stand on the same footing of eternal fairness in social life. The letter of the law may not so serve them, in fact it cannot, but their consciousness of right and reason does so serve them, and peace and harmony reign within the social household as a consequence. Truth in education, like "honest money" in commerce, serves all alike, without prejudice or privilege. Honest money is not changeable in value by expansion or contraction of credit, but it is a standard of commercial values, as the Living Truth, rising out of the Yang yin consciousness, is the standard of intellectual worth.

The Yang Yin lightning produces the Yin yang thunder, as two halves of the same act. In Illustration 133 the Wu sign stands for five, the halves of ten, while the cross stands for ten. The two together represent the elementary value, 5 chu, in the motivity of commerce, and symbolically a similar value in that motivity of nature which does the to-order-setting.

But what does the digest-center ingest, egest and set to order? Just one thing, answers the Chinese master-mind again: Yang Yin. In this case these words means something apparently different from the previous definition, and yet they refer only to another aspect of the same act, namely: The four inter-active and counter-active fields in the periphora which nourishes all ferment- and digest-centers in the world; therefore Yang Yin is the active and passive element in the universal fermentation and digestion process. The four fields in the periphora may be enumerated as follows:

First: The field of ponderable matter, surrounding the earth and all other planets.

Second: The field of imponderable matter; the solar light-heat field.

Third: The field of imponderable substance, or the all-penetrating undercurrents of substantial energy; the electro-magnetic field.

Fourth: The field of conscious energy, the individual periechon and its world-wide extention.

These four fields of all radio-activity, we may remember in a general way by the expression: The four quarters of the earth, or the four housings of radio-activity.

These two attempts to define the old Chinese conception of Yang Yin may not make the subject clear. I will try some other more analytic representation.

The preliminary definition of Yang Yin should state what it tends to do toward evolving life in the elementary stuff of existence; what changes it undergoes in the way of evolution, and in how far it remains what it originally was.

First: Yang Yin has both universal and individual tendencies to activity and passivity in all interaction and counter-action. In its universal tendencies it is side-pulling; in its individual tenden-

cies it is radio-active. The tendencies to conscousness are always implicit in it, universally and individually concentrating and diffusing the stuff of existence. They become in part explicit in the way of evolution, and in part implicit again in the way of involution.

Second: When the Yang preponderates over the yin in side-pulling tendencies, then Yang yin strains (diapheromenally) to carry apart the stuff of existence, in approximately straight lines. Its strainings are distributive and penetrating.

Third: When Yin predominates over yang, then the side pulling of Yin yang strains in circular ways (sympheromenally) to carry together or collect the stuff of existence.

Fourth: Yang Yin individual radio-activity by lineal distribution and circular collection makes for balancing and to-order-setting of these two universal counter-forces.

Fifth: The lineal and circular radio-activity of individual Yang Yin is under necessity of proceeding in four ways at all times to establish this balance or to-order-setting.

Sixth: The necessity of so proceeding divides the stuff of existence into four counter-revolving fields of activity.

Seventh: The inter-weaving of lineal and circular movements in the radio-active procedures converts the entire stuff of existence into innumerable, active, atomic crossing-points in spherical housings enclosed. Atom here means only double-active in lineal and circular ways.

Eighth: These atomic crossing-points tend to move in three directions: Height, Depth, Extent — toward organic Height, toward Depth of seed-energy, toward organic Extent.

These eight separate statements of tendencies are only intellectual aspects of that which characterizes any one act; they are only aspects of elementary, universal and individual characteristics of the stuff of existence. All these analytic statements refer to the four universal features and three individual phases which all causation has in common.

Analytic thought and language make it necessary for us to take these several aspects of fundamental characteristics of existence in order to prepare elementary conceptions for the further

definition of Yang Yin. This further definition is the story of evolution.

The definitions of words, denoting FACT, i. e., active factors in the chain of causation, as they are in themselves, can only be given by describing the **Doings** of these factors. With this work the original authors of sacred writings have had to struggle. The Egyptians struggled with it in one way, the authors of the Vedas in another, the authors of the Zend-Avesta in still another—and all these struggles over various ways led to about the same conclusions.

The Chinese do not define Yang Yin as above. To the intellectual workings of their mind, this definition is not suited or necessary. They try to define it by the original seal-signs, which even the Han Lin scholars cannot read in their original Thoughts and Intent.

Let us try to decipher the original meanings of the seal-signs.

Illustration 1 shows the so-called "Cash" from the later Han dynasty (Hou Han Chi), a reform cycle, contemporary almost with the beginning of our era. This "cash" was issued by Emperor Hsien, and was published in a Chinese work of "Ch'in Ting Chien Lu"; i. e., "Records of Ancient Coinage." I have partly explained the meaning and use of this cash in "Introduction to Errors of Thought."

On this so-called Cash appear the Seal-signs, which define Yang Yin.

On its left-hand face are shown the "Four Quarters of the Earth," symbolic of the four fields of counter-revolving factors in all nature's activity. The "Square in Circle" has a meaning similar to that of "Cross in Circle" (see Illustr.), differing only in as much as the latter symbol refers to lineal and circular movements in all radio-activity, physical, mental or intellectual; while the former refers more particularly to that of word-vested intellectual activity.

On the right-hand face of the cash appear three Seal signs which the Chinese read as Wu Chu; 5 cents, sometimes these "cash" bear another inscription, that of **honest money**, equal 100 or full value. The Wu sign consists of a double-cup, usually connected by the "crossing-point," symbolic of the to-order-setting power in the digest-center. The one cup contains the inward

working, more lineal Yang yin; the other cup that of the outward working, more circling Yin yang; referring particularly to the consciousness active in the human mind, we may say one cup contains more of the consciousness of "Reasons Why," and the other cup more of methods and means "How" the to-order-setting in nature is done, under pressure of life's necessity. These statements, of course, are reversible, for the rollings of time reverse the Fact. The cups fill themselves and empty themselves alternately in the rollings of time, partly from without and partly only from each other. In these alternations they partly change their contents, hence they do not work exactly like an hour-glass, which always retains its contents by changing the same stuff. In fact, these Wu cups are not depicted as an hour-glass. They are sometimes represented as separate sups; when so separated then the all-penetrating fields make the union or crossing-points between them.

The Wu symbols refer to the Right time in the alternating supply of nourishment to the digest-center. The need of nourishment alternates in the digest-center. Now, nourishment for evolving the powers of Reason, and now nourishment for developing the powers of bodily sense is needed. The changeful supply now builds up inner organic character, and now it builds the sensible housings for the protection and maintenance of this organic character. The cups work alternatingly and reciprocally as do the nucleolus and centrosome in cell-life.

The Chu-sign consists of the symbol of the Thunderbolt, which at all times denotes elementary, counter-activity; the carrying together, the carrying apart and the setting-to-order. This setting-to-order is here indicated by a cross-mark in the middle of the thunderbolt, so as to form a crossing-point in its central line. Sometimes this crossing-point is symbolically represented by a hand, to denote **doing-power,** as, for instance, in the Assyrian thunderbolt, and sometimes in Roman thunderbolts.

By the side of the thunderbolt is shown the **Arrow of Principles,** within the **four fields of activity,** denoted by four dots, from **Depth** of seed energy, through **Extent** of organic powers, into **Height** of self-conscious character. Height, Extent and Depth are denoted by cross-lines in the shaft of the arrow and by the point of the arrow.

All these things denote only the many aspects which the analytically working mind must primarily take of the **One Fact**—the first and most simple of all facts—in order to arrive at an explicit understanding of natural causation.

This is all the explanation which can go with these Seal-signs. If the mind can digest these explanations, by finding their bearing in the consciousness of life, then it can understand the story of Chinese Cosmogony; and through it it can come to know original causes, the origin of cosmos, of life, and eventually of ideas.

CHINESE IDEAS OF CREATION OR EVOLUTION, FROM ELEMENTARY WAR TO COSMOS AND LIFE, BY VIRTUE OF INDIVIDUAL CHARACTER-POWER IN NATURE'S RADIO-ACTIVITY.

The double-active Yang Yin character-power in the elementary stuff of existence is not only individually radio-active, but it is universally counter-active. It strains vainly to divide its universal counter-tendencies. The Yang half-tendency would dissipate all the stuff of existence; the Yin half-tendency would concentrate it all. Neither half of the universal counter-tendency can do more than produce a one-sided dominant capacity, which, prevailing for a moment, renders subservient its opposing counter-tendency, only to be in turn rendered subservient by the latter's rise to dominance. When the double-active force concentrates its tendencies into capacities on its one side, it dissipates them on its other side; it acts on its one side at the expense of its other side; and so acting it expends its energy in one-sided ways; its duality, however, makes it act alternately in both ways. Even the most elementary force has bipolar tendencies making for concentration and dissipation; and because it has these, even it alternates its polar activity in straining to divide the stuff of existence; it pulsates.

This universal counter-activity is described as the War of the elements. "War is the father of all things," said Herakleitos to describe this elementary counter-activity. This war would make

a chaos of all existence were it not for the intervention of the **individual** radio-active Yang Yin tendencies in the stuff of existence. These tendencies enter as a **to-order-setting power** between the extremes of **universal** bipolar tendencies and activity.

The double-active Yang Yin character has **universal** and **individual tendencies** to consciousness: **"Seng Wan Mau."**

Seng Wan Mau concentrates the **universal counter tendencies** to consciousness into **individual capacities** of conscious energy, and thereby metamorphoses into **"TI."** This concentration is effected at the expense of the universal counter-tending consciousness by individual radio-active character-power. This power begins the evolution of life by ingestion and egestion and for the purpose of

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ILLUSTRATION 132.

A Conception of the World-Egg in the radio-active digest-power of which the elementary tendencies to human evolution were contained.

For the purpose of presenting the work of the intellectual digest-centers to the mind, the Brahmins have designed an ideogram in which a human figure (Brahma Purusha) apears with outstretched arms and spread legs, within the form of an egg. (Illustr. 132.)

By this ideogram the Brahmins aimed to explain the workings of the digest-center in the way of evolution from the most elementary beginning to the Height of Self-conseiousness. Physical, mental and intellectual workings, all mental and intellectual workings, all were considered as originating in radio-activity in the digest-centers. We are not here going into the subject of unifying the diverse effects of radio-activity in the way of evolution. We only need the elementary idea of radio-activity.

To get at it, let us drop the many digest-centers in that figure, which are marked by circles with signs in the original, but are left out in our copy. Let us think only of the stomach or heart of the figure in the egg, and consider it as working in four elementary direction. The heart is considered symbolic of doing the tripartite work of digestion in the way of life's evolution.

In its work takes place the unification of the products of physical, mental and intellectual digestion. The stomach symbolizes elementary digest-power. The heart symbolizes highly evolved, organic digest-power.

Sidewise in the direction of the arms, the digest-organs interact with the **universal stuff** and its tendencies to consciousness. The arms bring this stuff to these organs.

In the direction of head and feet, these organs act in digesting and re-digesting individual tendencies to consciousness; they ingest and egest consciousness; they egest a conscious field—an aureole—about the upper end of the digest-axis, the head of the figure; and they draw on this field—they re-

checking the restless universal counter-activity which makes for extremes of concentration and dissipation. This individual checking, the work of TI, enters as a radio-active to-order-setting process between the counter-active lateral strainings of elementary Yang Yin forces, thereby establishing a **balanced sway** in inter-action, as a foundation to cosmic and vital procedures within the stuff of existence.

Yang Yin is the only thing in action. **Seng Wan Mau** is only the conscious aspect of Yang Yin. TI is Yang Yin consciousness in individual character-power concentrated by atomic radio-activity, and by its alternating assimilation and elimination.

Radio-activity is the foundation of the digestion process; it ingests and digests consciousness from the stuff of existence. Remember, the world-digestor, Brahma, of the Hindoo myths, and Chronos, of the Greek myths, etc., etc.

TI rises to the surface of the stuff of existence, an individually conscious character-power, but it cannot concentrate both halves of the universal countert-endencies to consciousness into itself at one time; and it cannot separate itself from the stuff of existence. It is bipolar and double-active, being of Yang Yin character; its gain, by concentration at one pole, entails a loss at its other pole.

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digest, not only from it, but from the universal field of consciousness, because the egested, individual field stands connected with the universal field—the periechon connects itself with the periphora. The universal field is a factor in the periphora.

Let us draw an imaginary perpendicular line from head to feet of the figure, to indicate the upright individual axis of the digestive activity; then let us draw a horizontal line through the **heart** in the direction of the arms, to indicate the lateral universal axis of the digestible stuff of existence. These lines form a cross with four arms or half-axes, which interact at a crossing-point or nexus, the radio-active center—the stomach, or rather the heart, of Brahma Purusha.

This cross represents the above idea of **crosswise**. The head-and-foot-line represents the to-order-setting procedure of individual consciousness, the **fulcrum**; and the arm-line represents the procedures in the counter-activity of universal consciousness; the lateral sway.

This is the only idea we need to remember out of this ideogram for the present. The spread legs refer to the human understanding of **duality** in all natural forces and powers.

We must explain all these ideograms in homeopathic doses, little by little. Taking them as a whole, their explanation makes too long a story. We can always return to any of these ideograms when we need to know more about the causes of evolution from digest-centers.

Its bipolarity makes it act alternately in all its lineal and circular radiations.

As one pole of TI rises the other sinks, bringing one-half of the conscious energy, embodied in its individual character-power to the surface at one time, while rolling along by virtue of its own circling Yin Yang tendency. Its one pole brings into its embodiment more conscious Yang Yin than Yin Yang; its other pole more Yin Yang than Yang Yin.

Moving on the surface of the formless stuff of existence for the purpose of maintaining the order of balance between the extremes

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In order to further illustrate the above ideas of evolution from character-power in radio-activity and digest-centers, we need to look at another Brahmin ideogram. Illustration No. 3.

The stuff of existence is here shown as the "Shoreless Ocean Anbeheh"(?) or "**Great Deep,**" upon which floats the original radio-active atom or digest-center, in form of a so-called world egg. In this egg lives the radio-active character-power, which can and does embody assimilate and eliminate tendencies and capacities of consciousness. From this egg sprouts the first Tree of the natural Knowing-powers. The digest-power of conscious **tendencies** in the egg grows into the elementary **capacities** of individual consciousness. This fact is symbolized in the Tree, and in the **three Lights** of its branches; the **Fourth Light** being the self-conscious crossing point of the upright tree and its lateral branches. The digest-power in the egg has transferred part of its activity to the digestive crossing point of the large Light, from which grow the branches of the tree; and there the ingestion and egestion of consciousness takes place, still in connection with fundamental principles of elementary radio-activity.

The connection in Illustr. 3 is depicted by the rooting of the Tree of Life and Knowledge in the floating world-egg, in which lives the original character-power or creative cause which theologians might properly call "God-consciousness."

The same principles of creative procedures extend themselves from physical creation or evolution into the mental and intellectual activity of Brahma Purusha, and through it into the minds of men who hold to the Brahmin cult or who hold thought to fundamental consciousness of life and of creative principles active in the digestion-process.

All digestive-centers ingest and egest alternatingly. All means of ingestion and of egestion alternate correspondingly to the alternating activity in digest-centers.

The root of the Tree in the Egg and the leaves on the branches symbolize ingestive and egestive means of the Life in the Tree. The digest-power of this Life produces the four Lights. Within the foci of these Lights are active the flowerings and fruitings of concentrating consciousness.

The side-lights symbolize the special consciousness of outer and inner sense. The up and down central Lights symbolize individualized Reasonableness and Native Reason.

The four Lights depict the living consciousness of Purusha, which gives human nature the power to know the **not-self.** It gives this power because it

of universal counter-activity, TI's polar activity proceeds **cross-wise** to the elementary straining. Its individual axis stands cross-wise to the plane of its rotation. Proceeding cross-wise it comes to act as a **conscious fulcrum in the scales of existence.** It gives **atomic biaxiality** to all existence by crossing the straining of the universal counter-forces. Its more conscious individual axis crosses the less conscious axis of universal counter-activity, cutting the latter in two and giving it two central poles at the point of intersection. **The crossing-point** of the two axes acts as the **all conscious** radio-active center. Mythically or figuratively speaking, it acts as the **original genius of creation.** (See Illustr. 3, the first Brahmanic World-egg.)

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draws attention of the thoughtful mind to the fact that it lives and knows by ingestive and egestive interaction with the periphora which stands connected with the radio-active root of all life and through it with the world-wide field of conscious energy—the "Anbeheh." These four symbolic Lights form the individual field of consciousness about the human mind—their egestion forms the "Periechon."

Here we have the origin of the Periechon; it originates in the egestions of consciousness by the radio-active digest-center. We will see more about this later, when looking at the activity of elementary cell-life.

The elimination of sewage is not taken note of in the above illustration.

The four Lights of Purusha are the first germs to the evolution of the individual **periechon** or field of human consciousness, such as language evolves in the intellectual atmosphere.

The side-lights evolve the special sense-consciousness, which comes to know the material fields. The top light evolves the "**Sense Soul.**" The main central Light evolves the "**Soul of Native Reason**" and self-consciousness in man; and this connects itself with the field of substantial and conscious energy—with the world-wide creative energy, we might say.

The idea of two souls in man is entertained by all cults, which originated in Fact-Knowing. It is not particularly Brahmin. It has been vulgarly called "**the dry or fiery soul and the wet or watery soul**"; the idea being that the **Soul of Native Reason** (Purusha) stands immediately connected with the world-wide field of conscious energy and that the **Soul of Sense** stands connected only with the local field—the local **periechon,** by its digest-powers. If the living self did not have this double connection with the not-self of the outer world, then there could be no eternal fitness of things; then there could be no fitness of organs within the body, nor any adaptability of the organic body to its environment.

The planetary or local **periechon,** presumably nourishes the watery Soul of Sense, while the solar or world-wide field of conscious energy nourishes the dry or fiery Soul of Native Reason. This two-soul idea has its foundation in the nucleolus and centrosome of cell-life. These two factors in every digest-center interact not only with their own local periechon or field of conscious energy, but also with the universal field; they both interact alternatingly with

For the purpose of temporarily helping to make the alternating polarity of TI clear, we might take the undue liberty of calling Yang Yin electro-magnetism. Then we might say: While one pole of the to-order-setting power of TI acts magnetic in a positive way, the other acts so in a negative way; and this magnetic activity reverses itself. This reversal is accompanied by a corresponding changeful electric activity.

The Brahmins represented the primitive radio-active to-order-setting power by the first world-egg floating on the "shoreless ocean." The yolk of the egg turns on the axial tendency or capacity which evolves the chalaza so as to put its character- and mind-making axis in upright position, leaving the lateral axis in horizontal position. The environing ocean and air feed the body- and sense-making axis through these lateral axes. In the crossing point of both axes takes place the reciprocal interaction of the two factors in the radio-active digest-powers which produce the **Tree of Life.**

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the universal field. They both ingest from and egest into all four fields of the periphora, more or less directly or indirectly, as we will see presently.

The ideogram illustrates a primitive "Step" of the genius of creation, taken to start the evolution of the intellect but corresponding to the primitive step in the evolution of life.

Having taken this step, the Genius is said to have **rested to admire himself.** He knew his work was good. He had created the first digest-center of intellectual life, corresponding in principles to the first step of physical life, from the Brahmin point of view.

From the above Chinese point of view this is the second step of evolution, it is the step from TI to Tai-Kih.

TI evolved himself or created the first permanent radio-active center by concentration of **universal tendencies** to consciousness into **individual capacities** of his own.

From this Chinese point of view, the original cause of creation or evolution is not considered as self-existing in all perfection; it is not considered as an omnipresent, omniscient and omnipotent individuality; but as a power which advances toward that perfection as it carries along the work of evolution. Shang-Ti is the eventual divine and now eternal perfection of divinity.

TI corresponds somewhat to the Eloah-personification in Hebrew-myths.

If we apply the Brahmin ideogram given in Illustr. 3, to Bible-formulas, by a little stretch of imagination, but in accordance with creative principles, we might say the main light of Purusha when raised to the height of intellectual evolution, corresponds to the wisdom of Solomon.

In Chinese cosmogony, the way of evolution (Tao) originates in TI's character-power. The power was in part transferred to the Tai-Kih, or original digest-center; it took the second step of evolution, which eventually led up to mental and intellectual digest-powers, always under control of radio-active conscious energy, and in accordance with creative principles.

TI's conscious individuality acts as a forerunner to the actual digest-power. It draws on the stuff of existence for this or that tendency to consciousness, as may be necessary to maintain the balanced sway of the elementary order of life. It assimilates, concentrates and individualizes tendencies to consciousness and converts them into actual capacities; and it eliminates the stuff from which this consciousness has been largely withdrawn. Thereby it makes waste and causes this to go into the environing stuff of existence. At the same time **it also accumulates assimilated conscious stuff about the digest center and eliminates part of this to give itself a more conscious environment about the poles of its upright axis. It makes for the evolution of the periechon.**

The assimilation of conscious **tendencies** by individual character-power evolves the conscious **capacities** in the **radio-active self.** It evolves these at the expense of the environing not-self. As the TI-power grows more and more conscious, so its elementary envi-

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The three steps of evolution from elementary nature to life, from life to mind, and from mind to thought, make up the three phases of the **One Process.** All these steps are taken in accordance with the same principles of procedure; and hence, the description of one step answers for all three, as far as principles of procedure are concerned.

The **Atom,** evolved by TI, was not the atom known to our thinkers. It was the atom of **indivisable DUALITY in individual character-power.** It was not the so-called atom of matter. Matter had not yet come into existence. The stuff of existence was still unknitted, excepting the circlings about the first atomic crossing-point, depicted as the Egg-form on the Deep.

TI now went out of the Evolution-business. This is my own way of putting it. The Mythical phrase, "**Stop to rest and admire himself,**" is not very descriptive, although it rings down the ages, through all cults. What is really meant by this phrase is that the conscious powers of life, having taken a definite step in the way of evolution, withdraws the head-light of its consciousness partly into seed-energy; i. e., it goes to seed, and the result of the step of evolution which it had taken, such as the formation of the first Atom, is thereafter propagated in the way of development through the diffused consciousness spread over the "Deep," i. e., the field of conscious energy.

Every conscious step of evolution marks the end of an epoch and the rounding out of a new cycle; after it, semi-conscious development and envelopment carries along the achievement of the former fully conscious cause of evolution.

The steps of evolution are epochs, marching up and down the mythical Jacob's-ladder. Illustration on page 83 presents this idea by a caricature: The genius of ear-born knowledge admires himself, having evolved a series of word-vested ideas, which sport like spooks about his bald head—the head which is incapable of thinking in **natural lines** and centralizing, organic ways. Elohim might be said to correspond to the idea of Shang-Ti.

ronment is rendered less and less conscious. TI's concentration in self entails loss of consciousness to the environing stuff of existence.

TI originates the consciousness of the Self and its power to distinguish the Not-self.

The TI consciousness of the radio-active Self, however, is a very different thing from that of the thinking ego; it is more like the self-conscious will-power in the living mind. (See note on page 305 to Illustr. 3.)

Life and mind originate in the individual Radio-activity of the elementary stuff of existence. Out of Radio-active centers, the digest centers evolve themselves, or are evolved by the TI-consciousness.

TI's individually conscious Self strains to check the extreme counter-activity in the universal Not-self, by drawing alternatingly through the inner poles of the lateral axis (the poles at the crossing-point of the two axes), now mainly for the conscious Yin yang tendencies, which, by **concentration,** can counteract extreme Yang yin forces of dissipation; and then mainly for the conscious Yang yin tendencies which, by **dissipation,** can counteract the extreme Yin yang forces of concentration. In this alternating procedure the individually conscious Self of TI places its own double-active Yang Yin and Yin Yang powers, as concentrated in its "upright" axis, against the less conscious universal Yang Yin, Yin Yang forces active at its flanks, through the lateral axis.

While the universal forces in the stuff of existence are rendered less and less conscious by the constant drawing out of conscious tendencies from them in the process of radio-active assimilation, the consciousness drawn out and concentrated is in part eliminated into the field surrounding the radio-active center, and there it forms a nimbus or aureole of conscious energy about the poles of the upright axis of TI.

There is nothing added or taken away from the sum total of original Yan Yin tendencies to consciousness by the work of TI. All TI does is to change the percentage of consciousness here and there in the original stuff, by putting more into Self and leaving less in the Not-self. But the Self is only a crossing-point in the axis which cannot hold much assimilated and concentrated con-

sciousness. Therefore is the surplus egested and placed about the poles of the solid upright axis to form a field of conscious energy. When TI has charged its upright axis with concentrated consciousness, and overcharged it, and egested the surplus in the polar fields of conscious energy, then there remains no more work for the exercise of its radio-active energy to do. Therefore it fags, and its axis divides itself, causing the concentrated, conscious substance to go partly in the polar field of conscious energy for rest, and partly into the seed-energy at the crossing-point for future renewal of activity.

Thus TI goes out of the active business of evolution, smiling, having ended the chaotic war of elementary forces, and having made these forces tributary to cosmic order; and also having started the evolution of the field of world-wide conscious energy, the field which was destined to become peopled with innumerable and immortal radio-active character-powers: the Shang-Ti.

The seed-energy of TI went into the coming Tai-Kih power.

The Tai-Kih takes the next step in the way of world-wide evolution.

Before taking up the Tai-Kih let us take another look at the work of TI, to mark well the memorable points in the first step of evolution.

TI is the individual but double-active character-power in atomic radio-activity, which assimilates and eliminates consciousness, and works toward the evolution of the actual digest-center of life.

TI has two axes, its own is a **solid upright axis**; the other, which is made tributary to its own, is a lateral axis; it is broken by the crossing of the former. The more conscious, solid axis of the radio-active center forms a **cross** with the less conscious broken axis. The two axes form two counter-revolving spheres of the constantly interacting stuff. The sphere of the solid axis cuts the sphere of the less conscious axis in halves; but it is thereby flattened, and the halves spiral into its center, where the spheres focalize their interaction in the crossing-point of the axes. (See the symbol of the Chinese double-cup "Wu.")

The solid axis does the to-order-setting. The broken axis is made to furnish the means to the work of to-order-setting, it carries

the stuff of Existence to the crossing-point by reason of the penetrating Yang yin force in its character. It carries it in spiral movements, since it rotates by reason of the Yin yang force in its character.

The radio-active crossing-point and the upright axis are supplied alternatingly, from the one side or from the other, through the lateral axis; and the crossing-point eliminates waste through one-half of the lateral axis, alternatingly in direction opposite to the active feeding pole; that is, it eliminates at the temporarily passive pole.

That which the crossing-point assimilates from the stuff of existence, it converts into conscious individual energies, and these it sends along its upright axis alternatingly toward one pole or the other. The Yang yin energy goes toward the top-pole; the Yin yang energy toward the bottom pole both to be eliminated into the immediate environment of the radio-active center into the field of conscious energy.

On this field the radio-active center draws through the opposite poles of its upright axis alternatingly for the once assimilated, but egested, Yang yin or Yin yang energy to be re-assimilated and disciplined.

Four spiraling movements in and out of the radio-active center are to be noted in their alternations. Two of these act as suppliers of means, the other two act as disciplinarians of conscious energy.

The spiralings about the poles of the upright axis make for **reciprocal interaction** with the field of conscious energy; while the spiralings about the poles of the lateral axis make for relative interaction between the crossing-point and the stuff of existence.

Thus the TI consciousness through its upright axis works **reciprocally** with its field of conscious energy for it draws upon that which it has created, and it receives no more from it than it returns to it. But through the lateral axis the TI consciousness works **relatively,** for it receives more conscious value than it returns. It draws upon conscious tendencies and returns waste. In this Reciprocity and Relativity are founded the **Principles of Life and of Death,** and the procedures of Native Reason and of Special Sense.

Thus the TI character-power in the radio-active center, lays the foundation for the **reciprocal principles of life** and for the **relative principles of death,** in accordance with which the digest-center eventually evolves the powers of life and the forces of death.

TI originates the self-conscious atom; the consciousness of Self in distinction to that of Not-self.

TI also begins the development of the four fields of nature activity; the fields of ponderable matter and imponderable matter resulting from the eliminated waste of the radio-active center, through the poles of the lateral axis, and the fields of substantial and conscious energy resulting from the surplus assimilation of consciousness and its consequent egestion at the poles of the upright axis.

TI actually begins the division of the stuff of existence into matter and mind.

TI makes the warring elements of chaos furnish means to do cosmic and eventually vital work.

TI lays the foundation for the workings of life and of death by the final self-division of its powers and by its retirement from the business of evolution on the one hand and its going into seed-energy to evolve the Tai Kih on the other hand.

TI evolves self-conscious individual radio-active energy and disciplines it. This energy, by process of assimilation and elimination and re-assimilation gains the power to do higher and higher digestive work, eventually in its way of evolution.

TI also originates seed-energy by this self-division, and by going into the Tai Kih power, in part.

TI is the original genius of creation. It is neither male nor female, it combines the tendencies to both sexes, it is arrenothelous; like the **Creative Word** in all great cults; i. e., making for the evolution of sexes.

The Chinese consider TI the original God or cause of evolution, and Shang-Ti the final product of the TI evolution, and the now universal God or cause of evolution.

According to the Chinese conception of Fact, the cause of evolution evolved itself in the way of evolution. But in that world-wide way it evolved infinitely higher powers of conscious energy

than is active in any effect evolved on this earth, than is active in the human mind, which is still striving onward and upward in the way of evolution; that is, in the Tao.

The universal Reason of evolution, Shang-Ti, is a factor in the human mind, alternatingly dormant and active. But the bodily means at human command of this Reason is not the highest ever evolved in the world. Man, the best effect of earthly evolution, is not the highest effect evolved in the universe—therefore is he less conscious than the cause of his evolution.

Greater solar systems than ours are bi-products of higher stages of evolution than ours. The cause of evolution has reached its highest stage of perfection in other than this mundane sphere. It has divided the whole world into the powers of life and of death, and balanced them equally to remain forever active in the same way. The less conscious effects keep struggling toward more conscious powers, but these powers can only find embodiment in the living self by more highly evolved organic means than ours, and by right and reasonable use of these means.

To the practical Chinese mind the Tao is the way in which the living self struggles onward to the height of universally conscious doing-power—the Shang-Ti—the self of all selves.

The Brahmins borrowed this idea from the Chinese. They fitted it into their system of knowing and believing. They made the idea of Nirvana out of it, but they did not improve it thereby. The Buddhists borrowed their idea of Nirvana from the Brahmins, and made it a merely intellectual ideality and a finally ridiculous figment of thought.

The hand-me-down ideas are never improved by the intellectual wear and tear.

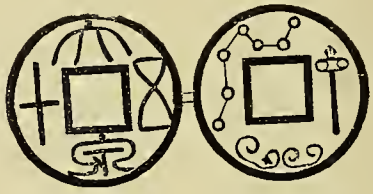
Herakleitos borrowed the Chinese ideas of TI and Tao, and embodied them in his logical legomenon for Right-thinking, Right-speaking and Right-doing. "Unify the solid axis of your living self, which perpetuates life, with the broken axis, which provides the perishable means—that which carries together with that which carries apart—that which makes for universal harmony with that which makes for disturbance of it—the All with the One and the One with the All." That is not a verbatim translation, but it is

the meaning of the Heraklitean legomenon, as preserved by Stobaens, Eglogae Physicae et Ethicae Gaisford, Vol. 1, p. 690.

Fact knowing is never anything else, but a unification of the many things in the Not-self with the **oneness** of the conscious self, and a reduction of the many specially active causes with the one original cause of all change: The Radio-activity of TI and of the living Self.

ILLUSTRATION 134.

Illustration 134 represents a Cash issued by the same dynasty in the same educational and social endeavor, but the reverse side of the Cash shows the aphonic meaning of the phonetic inscription plainer than the above. It shows three well-known symbols: The Clouds below; the Great Bear sign ('Pei Tou) above; and the analytic Sword.



In the handle of the Sword appears the **Crossing-Point** to which the analytically-thinking mind must hold its self-consciousness in order to know the gist of natural causation, in order to evolve intellectual lights true to Fact, and in order to rise above the cloudy consciousness of feelings, impulses and passions.

In the **Crossing-Points** of Yang Yin counter-mobility and motivity lives the conscious energy which does the work of evolution—of creation.

ILLUSTRATION 135.

The Origin of the Trimurti.

Illustration 135. A conception of the third Brahmanic egg floating on the unbounded stuff of existence. The creative consciousness which evolved the human intellect evolved itself out of the radio-active consciousness which primarily sets to order the elementary workings of nature.

The human intellect, if naturally evolved, is the tripartite fruit of the flower of feeling, the lotus, upon which it thrones; and it stands connected with the all-sustaining elementary radio-activity of conscious energy. It shares the tripartite powers of this energy in due measure; it can do the work of inner organization and of outer adaptation, and it can take steps of creative evolution in the process of civilization.

THE ORIGIN OF THE TAI-KIH OR FIRST DIGEST-CENTER.

The work of TI has little power of individual endurance or fitness of survival, therefore the TI character metamorphoses in part into the TAI-KIH power.

At all times does the lateral axis, the axis of the less conscious elementary and universal counter-forces, tend to divided the upright axis by **Cross-cuttng** it at the crossing-point. This division would be fatal to cosmic order and life it if could occur; but it is in part obviated by the genius of the Tai-kih, which takes the second "Step" in the way of evolution; it evolves the first actual digest-center. It divides its oneness into two specially active parts, and yet holds each of the divided parts together as a digest-unit; thus making a family of the digest-center. It does this in the fullness of its development by doubling up its upright axis, severing the bend and crossing the halves, thereby giving itself four active poles of its own, and protecting its crossing-point against the lateral flanking force of the elementary Yang yin and Yin yang.

By giving itself two digestive-axes of its own, it gives itself also a new field for the exercise of its energy. It gains powers of endurance and of survival; first by presenting an active pole of its own toward the elementary forces, and secondly, by forming a complete field of its own egested conscious energy about its sphere.

THE WORKINGS OF THE ORIGINAL DIGEST-CENTER.

The Tai-kih consists of two polliwogs in one spherical housing. The one polliwog makes for masculine character, the other for feminine character. They grow alternatingly—while the one grows in bodily tissue, the other grows in mental energy. The two polliwogs live and grow, of course, by digestion. Each has its own axis of digestion and rotation. The one axis works as a body-maker, the other as a mind-maker, but by reason of alternations in polar activity, the axes eventually reverse their workings. The two axes cross each other in the center of the sphere. They revolve the fields of ingested and egested substance in opposite directions through the sphere.

The two axes of the Tai-kih correspond to the nucleolus and centrosome in cell-life.

The polliwogs grow alternatingly. While the one polliwog grows in body toward an eventually organic form, physically and mentally, the other grows mentally and physically toward eventual seed-energy. They work for each other's growth; they work reciprocally between themselves, but relatively against the counter-active forces in their environment. They supply each other's needs through the nexus or crossing-point of their axes.

One polliwog is red, the other blue. (See Corean Tai-kih, elsewhere in this volume.) The red polliwog has a blue axis and the blue polliwog a red axis, on one side of the Tai-kih sphere, but on the other side it is presumably of the reverse coloring. The nexus or crossing-point of the two axes is yellow. All this color-description has nothing to do with the chromosome, known to modern biologists, nor does it exactly correspond to the modern idea of cardinal colors. I mention these colors only to facilitate the description of the Tai-kih character, and to avoid the constant use of "Yang yin" and "Yin yang."

There are four half-axes in the spherical Tai-kih, which are united and divided in the nexus. In as far as they are united, in so far do they work for each other reciprocally; but in as far as they are divided, they have an independent activity of their own, and they work relatively in their inter-action with their material environment, but reciprocally again with their field of conscious energy.

The half-axes are really bipolar, or they come to be so during the growth of the polliwogs. They receive and deliver alternatingly at either end. The polar activity of the half-axes at the nexus increases as the polliwogs grow toward maturity.

At maturity the polar activity at the nexus becomes a cause of self-division. The one axis acts as a centrosome; it prepares protoplasm for the physical nourishment of the digest-center. The other axis acts as a nucleolus; it prepares bioplasm for the nourishment of character-power.

In self-division the axes part company, but only to re-unite themselves in part. The other part of the nucleolus goes into the field of conscious energy, and that of the centrosome into the nucleolus.

The centrosome-axis is a digester of elementary matter. It is a body-builder. The nucleolus is a character-builder and mind-maker. It works only previously digested matter, from either the field of conscious energy or from that which is delivered to it at the nexus by the centrosome.

The bodily-growing polliwog makes a "crescent" or a "rib," mythically speaking, of the mentally-growing polliwog. While the red half-axis of the physically-growing polliwog works by drawing on stuff from the environment, it also works its central terminus; i. e., it delivers digested stuff through the nexus to the blue axis of the other polliwog, and vice versa. The half-axes work alternatingly in drawing or receiving, as well as in delivering; they work alternatingly as hunger and satiety alternate.

The change from hunger to satiety and from satiety to hunger in the two polliwogs causes the polar activity of the axes to "metabole"; that is, to reverse the work of ingestion and egestion, and to provide different kinds of nourishment from the fields.

This first "metaboling" should be remembered; there is a long string of metabolings in the way of evolution.

The half-axes not only supply each other with digested stuff, but also **the field of substantial and conscious energy. Every digest-center creates such a field for itself—an individual periechon.**

There is an end to every growth; for the growing power exhausts its energy in the fullness of time.

Both polliwogs grown, the one physically large, the other consciously strong, self-division of the four half-axes takes place, on the principles explained in the note to "The magnet with consequent poles." **The crossing-point divides itself**; its divided energies follow in part the **destiny** of the half-axes, and in part their **fate.** The more conscious energy goes on, making the Way of Life one of destiny; the less conscious energy struggles along under the uncertainties of fate, between the powers of life and the forces of death. It goes toward death, but not as a whole; in dying it divides itself again and partly struggles back to life.

In self-division the red half of the nucleolus forms a union with the blue half of the centrosome. The blue half of the nucleolus and the red half of the centrosome go partly into the substantial and conscious field and partly into sewage — into the material fields.

The self-division of the digest-axes in the Tai-kih multiplies the Tai-kih character-power. It makes two out of one. Of the two new character-powers there is one predominately masculine, the other predominately feminine.

The Tai-kih Genius has finished its work. It has created or evolved the first individual digest-center, the first complete field of substantial and conscious energy, and the first **yellow crossing-point** or perpetual character-power of individual life, and also the first individual death.

Having done this work, the Tai-kih now goes out of business, smiling. It divides itself. It goes partly onward into seed-energy, and through it into LI, its son; and partly it goes backward, to join the departed Genius of TI in the growing field of conscious energy.

LI takes up the work of evolution. He invents the corpuscle or first actual cell of sexual life. He does this by dividing the two axes in the digest-center, thereby making two independent bisexual cell-families out of the one digest-center. These two cell-families work side by side in the same fields, and for the same field of substantial and conscious energy; but they work in opposite ways according to sex; each draws on and through the field accordingly for needed powers.

At maturity, before exhaustion of their energy, by so drawing, they divide themselves into four single-sex protozoan types. (See

Illustr. 118.) Two of these types carry along the LI-line of evolution; the other two evolve the sewerage-workers by the sides of this line; they protect the purity of the field of conscious energy by eliminating and redeeming sewerage.

The field eventually becomes world-wide; all individual life contributes to it; all draws on it.

The world-wide field of conscious energy the Chinese call Shang Ti, for the character-power of TI is now active in a world-wide way. The sewerage gathers on both sides of the way of evolution.

Its accumulations, at the beginning of life's evolution, produce but minute and ephemeral approachings to planets and solar-planetary systems in the stuff of existence; but eventually life continues its work and becomes more enduring; the sewerage accumulations produce larger and larger and more and more lasting systems for the working over of life's offal; and these systems are always of a solar-planetary type. There are always one or more centers of accumulation and disinfections, and there is always a center of final dissolution or combustion, to return the last of the sewerage to life.

The LI line moves along the Tao, the way of evolution. It works by drawing for reproductive energy on the "field of consciouness," and eventually it evolves the corpuscle of six members, which, by digestion and by certain repeated and rising re-digestion, and corresponding self-division, evolves the highly organic body of man, its mental and thinking powers—out of one, two; out of two, four; out of four, eight, say the ancient Chinese scholars.

The Pa-kua, or eight trigrams of Fu-hsi, formulate the cyclic procedures of this repeated and rising and receding (step by step) in the Tao by digestion and re-digestion and consequent self-division. Chien is the father of the seed-energy in the corpuscle, for he supplies reproductive powers from the world-wide or so-called solar field of conscious energy to digest-powers. K'wan is the mother of seed-energy in the corpuscle family, for she similarly supplies reproductive powers to digest-centers, but only from the individual field of conscious energy, the so-called planetary field.

If all life did not draw, in its process of digestion, on the individual and the world-wide field of conscious energy, the species would speedily deteriorate. There could be no uniformity in the individuals of the species. The descrepitudes of the parents would multiply themselves in the offspring. Therefore, said the Christian fathers, who deified the world-wide field as the "Father in the Trinity," "God gives us life," or, "God giveth increase."

This is as far as myths and ideograms go in Chinese cosmogony. To go further, we have to go to the Han Lin scholars. All

that remains to be considered are the details in the steps of evolution which take place in the human body. These steps begin with phases of digestion in the stomach and rise by repeated re-digestion and self-division in the other digestive organs of the human body, all leading up to mental and intellectual faculties and powers.

At every step the physical, mental and intellectual digest-centers, or families of digest-centers, interact with the various fields which surround them. All work in four-fold ways by ingestion and egestion. There is nothing in the workings of the highly organic body which was not in an elemnetary way in the workings of the Tai-kih.

All functional parts of the human body are built up of radio-active digest-centers. All these live by digestion; all maintain themselves by self-division; all contribute their representative might to seed-energy in the fulness of their development. The entire body of man or animal is built up by radio-active digest-centers. Flesh, bone, hair, cartilage, etc., are developed by specifically active digest-centers. All these stand connected by the penetrating fields of substantial and conscious energy; some are connected by special organs; all make their connection with the one determining power, presumably located at the base of the brain, or wherever the three tripartite powers of the brain are inspired. The intellectual factors work downward from the brain, the mental and physical factors work upward from the body. The Han Lin scholars explain these workings by diagrams. They connect them with the beatings of the heart, and with pulsation. There is much detail to the Chinese way of knowing the workings of the human body, but these details do not fit the present stage of our scientific knowledge, and any attempt to go into them would only bring us into idle conflict with our specialists.

Fu-hsi's trigrams furnish the original foundation of Chinese learning, even to this day. These trigrams are no longer considered, at least not in their original form. The so-called King Wan (who, according to our archæologists, lived about 1,200 years before Christ) seems actually to have been an historic person. He is accredited with having amplified the Fu-hsi trigrams by converting them into hexagrams. In this conversion he made some fundamental changes to suit his fancy, and he presumably wrote the Yh King to explain his conceptions of the hexagrams. The Yh King, as it now stands, is an excessively top-heavy work. It does not elucidate the cyclic changes which all causation has in common, and which certainly must have been elucidated by the originator of the Pa-Kua. It rushes into giving the hexagrams practical application in social, moral and intellectual life. This is just

what any opinionated quack would do. If the master-mind which originated the trigram to explain the elementary workings of causation, had amplified the trigrams into hexagrams, as some scholars believe, and had himself explained their application to social life, then the work would certainly have value. As it is, the Yh King and all the other sacred books of China, inclusive of mythical stories, seem to have met with the same fate as all other mythical and sacred writings—they seem to have fallen into the hands of historical thinkers who remodeled them, and thereby modified their original meaning without improving it.

The historically-working mind never can understand the meanings of mythical illustrations of Fact.

The modern Han Lin scholar has as dim and confused ideas of the meaning of his sacred writings as our theological and archæological scholars have of the Bible-work.

To me it seems that the Chinese, like all other races, have been intellectually retrograding for at least 4,000 years, and that the destruction of all Chinese learning had become a necessity in the first Han dynasty, when it occurred. The great then prevailing confusion of ideas had made it necessary to check the influence of visionary intellectuals upon civilization.

It does not seem to me that any of the present Chinese classics are of genuine pre-historic origin. The ideas in them look like "hand-me-downs."

Confutze (Confucius), the best-known of Chinese thinkers (600 years before Christ), confessed not to have had a thorough understanding of the Fu-hsi trigrams.

The next greatest thinkers of China, Chut-se in the eleventh century after Christ, and Chu-hi in the twelfth century, were certainly men of remarkable minds for detail. Their work laid the foundation for the present Han Lin College. But they confessed that the world-wide workings of the Tai Kih were incomprehensible to them. They evidently could not decipher the meanings of the myths and ideograms. They, too, had historic minds, although they were remarkable Fact-knowers in many ways.

The Chinese myths give two accounts of the origin of the Fu-hsi trigrams. According to the oldest, Fu-hsi evolved them out of his conceptions of the constant plan of causation—Ho, the River of Life—and out of the two axes of TI, the solid and the broken axis. This idea Herakleitos seems to have adapted in his flow of things. The later Chinese myths account for the origin of the trigrams out of the conception of the universal digest-center—the Tai Kih—which appeared on the back of a winged sea-dragon, rising in the River of Reason, Lo, after the deluge. According to the ancient North Americans, it appeared on the back of the mythical turtle,

the glyphic representation of the original corpuscle.

The myths and the ideograms are the most neglected, and yet only reliable, sources of old-time knowledge.

Fu-hsi's Pa-Kua is the oldest of existing formulas designed to lead thought along the cyclic changes in the causes of evolution. All existing mythical stories are later formulas, and in all likelihood they are only imitations of Fu-hsi's unspoken idea.

The mythical or so-called sacred stories which depict the course of intellectual and social evolution, should conform to the Pa-Kua diagrams, if these diagrams truly formulate the cyclic changes in the life-evolving causes.

No written explanations of the Fu-hsi school have reached historic ages. None but fake-reformers and cheap imitators have explained the workings of the original Pa-Kua to the Chinese students. The original ideograms which explained the Kua of the Fu-hsi school are probably intact, but the mythical stories explaining the ideograms have been mutilated by historically minded imitators.

The extension of the Fu-hsi trigrams into hexagrams and further detail is of questionable value; it may be doubted whether it originated in a full understanding of the original trigrams. Putting the trigrams or ideograms into arrangements of squares is error. There seems to be a good deal of "Yao-tinsel" in the explanations of the hexagrams.

These extensions of trigrams into hexagrams were intended to formulate and explain the evolution of the powers of life into mental and intellectual powers and the influence of these powers upon civilization. By rushing into the details of intellectual evolution, the mind is apt to lose its hold on fundamental principles and Facts.

Some thirty years ago, two English sinologists, Professor Douglas and P. de Lacouperie, promised to give the world an insight into the original Fu-hsi school. If they have done it, I have not heard of it. I have given Chinese classics no thought for many years. I am writing entirely from memory, and I take the liberty of putting the old ideas as much as possible into modern words. I write without even consulting my notes. I do not care to go to the trouble of looking them up. They go largely into self-dividing duality of character-power, and into the re-digestion-process by various organs in the human body. It is this re-digestion-process which divides the consciousness of life into mental and intellectual branch-development.

Our evolutionists imagine that the world never knew as much about evolution as the foremost thinkers do now. They imagine that ascent from monkey-intelligence into human intellectuality

has been one uninterrupted triumphal march of human knowing-powers. They imagine this because they do not understand that all evolution of special powers is accompanied by involution of germ-powers. They do not realize that all evolution is a metamorphosis and not a making of something out of nothing.

When the mind grows strong in powers of Sense, it grows weak in powers of Reason, and vice versa. Sense and Reason have their seasons in the cycles of evolution and involution. There is a zenith and a nadir to intellectual evolution, as there is to all evolution. The old world had reached a Height of character-evolution, sustained by reasoning powers, which the boldest imagination of modern thought cannot even conceive as a possibility.

RECAPITULATION.

The whole subject of evolution, seen from the ancient Chinese point of view, hangs together as follows:

Seng Wan Mau, the world-wide tendencies to consciousness in the stuff of existence, are partly concentrated into individual capacities by the radio-active character-power—TI. TI partly transfers these powers to the Tai-kih, the elementary double-active digest-center, with tendencies to division of masculinity and femininity.

The Tai-kih, by its evolution of the digest-center and by its self-division, evolves individual powers of digestion and re-digestion. It also evolves four kinds of individual powers of life and a four-fold field of material, substantial and conscious energy, surrounding these powers of life, individually and universally.

The Tai-kih-power establishes the Li-line of organic evolution, which eventually produces the corpuscle of human seed-energy with six radio-active centers of digestion and re-digestion.

The evolution of this corpuscle is accompanied by evolution of the organic body. This body serves as means to nourish the six-power digest-centers in twelve ways from the four double-active fields of nature's activity.

Putting the workings of self in man's organic body into their natural connection with the universal and individual fields of conscious energy and with the six-power digest-centers, led to the making of the Pa-kua and Tchy formulas. These formulas should represent all the changes which take place in fundamental cycles of development; and they should also represent the changeful workings of mind and thought, in as far as these workings are necessarily connected with life, individual and universal.

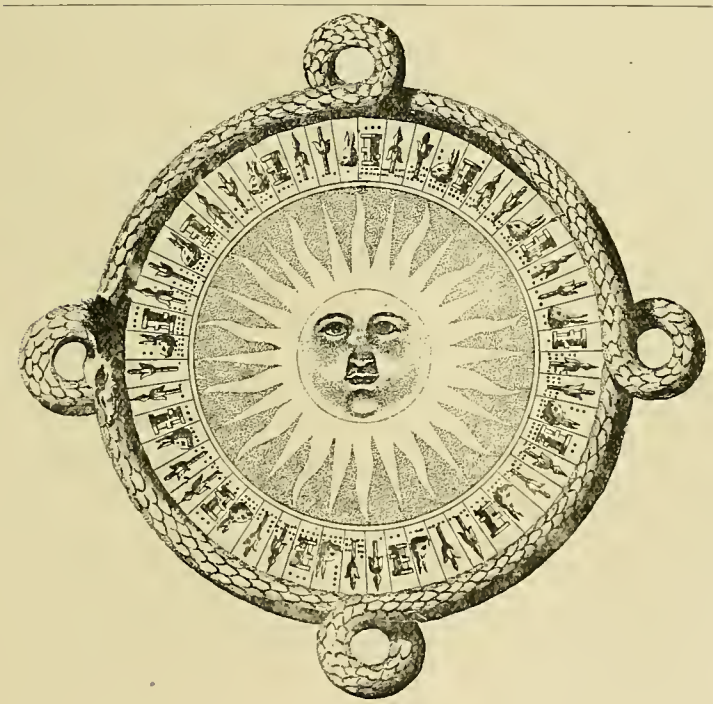
King Wan, whose lead the Old Testament seems to follow, makes the Kua representative of a complete corpuscle-family of eight members. He makes LI the second son in the corpuscle-

family—in human seed-energy. The blue-blooded LI is the initiative of Native Reason, who carries along the LI line of evolution, from physical, through intellectual, into social life. He is the **logos** in intellectual life. Wan makes the red-blooded Kan the initiative to special Sense development, the first son in the corpuscle family. This corresponds to the Old Testament stories.

The New Testament stories, as they now stand, make Christ, the **logos**, the first son, and only son and initiative to the regeneration of the Powers of Native Reason in the human mind. If these stories were truly mythical, James should be the elder brother of Christ. Is John the Baptist, in the River of Reason (Jordan), enough of a forerunner to intellectual and social regeneration?

The LI of the Kua is not the immediate son of the Tai-kih; it is not the founder of the LI-line, but it is the other end of this line, the intellectual end, i. e., the to-order-setting character-power of the intellect, which, of course, is the same in principles of procedure as that in elementary life.

The Li-line evolves the powers of Native Reason to the Height of self-conscious, Free-agency character-power. The evolution of Sense, which accompanies the evolution of Reason, is Ki. These two powers are personified in Old Testament myths as the two brothers, El-oah and Sama-el, and by two-brother stories in other myths. El-oah and Sama-el have been left out of all modern versions of the Old Testament.



Illustr. 140.

The World-Clock from prehistoric America. See explanation in chapter on Tides.

GENERAL REMARKS ABOUT THE WORLD-PROCESS.

Solar-planetry systems are sewerage-workers in the universal process of life and death.

All fixed stars are centers of planetary systems. All these systems work on the same principles of life and death as does the corpuscle in the organic bodies of plant or animal, but in the return movement of their cyclic counter-procedures; that is, under opposite predominance of polarity in biaxial character-power.

All the stuff of existence, be it rarefied substance or solidified matter, be it in solar-planetary aggregations or in organic forms of life, it is at all times and places being worked over and over by atomic character-powers in either ferment or digest-centers. This working over and over is the Anathymiasis.

The principles of life's procedure work as a unit with those predominating in procedures of death; but these procedures work crosswise of each other to part company and to return for reunion in the double-track way of cyclic counter-procedures in which all existing stuff partakes.

All planets are graveyards in the making—and nothing else.

All suns are sewage-burners — abandoned graveyards — and nothing else.

The process of life is nothing more than a digestion-process of two counter-procedures; one going into organic growth, the other into seed-energy.

The process of death is nothing more than a fermentation-process of two counter-procedures; one going away from life, the other returning to life, now rarifying the stuff of existence by fiery ferment, now solidifying it by watery ferment-changes.

These two kinds of counter-procedures in digestion and fermentation make up the four cyclic counter-procedures in the world-process.

There is nothing else in the world, besides the cyclic whorlings of life and death under the control of conscious energy, individual and universal. (TI and Shang Ti.)

Pre-historic thinkers knew all these facts. They had come to know them without use of microscope or telescope, presumably.

Life has its origin in gaseous states of existence. Protoplasm is gaseous before it becomes liquid or solid.

Vitality begins its organizing work in aerobious types. It passes through a cyclic course of evolution, perfecting both character-powers and their corresponding organic housings or forms. And it returns in the counter-cycling way of involution to acrobious types and world-wide vitality, directly or indirectly through sewage work; always working in connection with the to-order-setting powers which counter-cycle about the world axis.

Vitality works always in connection with sewage in the solar-planetary **sphaeros,** and never as an absolutely unmixed power—never as a **panton kechorismenon,** nor **"oudeni menignenon,"** emphatically not mixed, as the Herakleiteans and all other abstract thinkers would have it. The absolute character-power in the genius of creation or evolution works only in connection with relativity, surrounding individuality in the perechon-faculties. **The Creator is not a power standing apart from the work of Creation nor independent of it.**

It has often been said that solar and planetry systems originate in cosmic clouds and it is true enough that these systems not only so originate, but that they also dissolve themselves into cosmic clouds and are again reproduced by them, but it has not been said that the cause of their dissolution and reproduction exists in atomic character-power, and that that power contains tendencies to life. Only when these tendencies became actual capacities, proceeding in the way of organic evolution, does the reproduction of minute solar-planetary systems recommence, for these systems are bi-product of life; they are sewerage systems of universal life—of life's evolution, wherever it takes place.

Life in its course of evolution is always nourished by solar-planetry interaction and counteraction. The solar-planetary waste of life is restored to life through the universal fermentation and digestion-process, in which the imponderable solar substance and the ponderable earthy matter continue to interact with each other and counteract each other.

All life subsists by assimilating dead substance. Most of the dead substance which we breathe and eat originated, directly or indirectly, in sewage of former life. The digestion-process of life draws on the non-vital fermentation process in two ways; in two other ways it eliminates its dying substance, leaving it to be disinfected and regenerated in the process of death. The digest-centers of life always make two kinds of sewage, one on each side of their way of evolution, one gaseous and making for rarefaction the other liquid and making for solidification. The two kinds of sewage are being constantly disinfected and changed in the knittings of their aggregations by the all-penetrating field of substantial energy **(catalysis). They are in part reintroduced** into the digestion-process of life, and in part shoved further and further away from the way of life, to accumulate as rarefied, non-vital, gaseous matter on the outer side of life's cyclic way, and as solidified matter on its inner side.

The reanimation of the dead food we eat is not effected in the stomach or intestinal digestion. The character-centers in the food climb upward in the glandular system and they gradually unify

themselves with the downward working character-centers in the air which we inhale. This unification reanimates the character-centers coming from the dead food, for the air is permeated by the world-wide field of vitality. The breathing organs have as much to do with the reanimation of dead food as have the organs which digest ponderable matter, and they have more to do with mind-making. The anodos and kathodos in digestion nourishes and builds up both body and mind, and it unifies both matter and mind—thing and thought—the physical and the mental working and growth.

The equilibrium of upward and downward digestion keeps both the bodily and mental economy in healthful working order. See definition of "dendrite" in glossary. The meeting and the parting of atomic character-centers in the crossing-points of other character-centers, active in fermentation and digestion, does the body and mind-building and in fact the world-building.

All procedures in the ways of either life or death are lateral movements from masculine strainings to feminine strainings, from diapheromenal preponderance to sympheromenal preponderance, forth and back, through the to-order-setting power vested in the crossing-point of atomic biaxial character-centers.

THE INNER AND OUTER FOUR-FOLDNESS OF POLARITY IN ATOMIC CHARACTER-ENERGY

All character-power is biaxial or four-sided in its polar activity. It works with opposite and alternating predominance in cyclic counter-procedures through the axes into their poles, from the predominance of two opposite poles into that of two other poles.

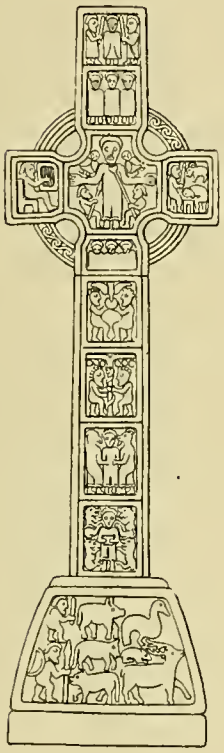
The biaxiality of all character-centers and of aggregations or organizations of character-centers gives any and all things a four-fold polarity, without. Each of these four poles is double-active in alternatingly one-sided ways, and each reverses its one-sided activity as **Chresmosyne** and **Koros** alternate. This reversal is a **metaboling** within the double-active character-power.

The biaxiality of all character-power originates in the crossings of the world axis with the individual axes of all atomic radioactivity.

The all-penetrating world-wide fields of substantial and of conscious energy rotate about the world-axis in opposite directions to each other, approximately balanced; that is, predominantly in one way, subserviently in the opposite way. These world-wide counter-rotating fields intersect the local fields of all atomic, radioactive centers—the fields which counter-rotate about the individual axes of the atomic character-centers. This rotation and counter-

rotation of individual and universal fields mixes the stuff of existence in all ferment and digest-centers, and it focalizes universal and individual energy in the **crossing-point** of their axial counter-movements. This mixing or **Krasis** vests **all character-power in the crossing-point**; it makes all character-power a compound of universal and individual activity, and it nourishes all character-power by ingoing and outgoing counter-procedures through the **crossing-point**. (Illustr. 136.)

The cross in a circle is a valuable symbol in as much as it may serve to draw the attention of thought to the universal and individual features of causation. First of all the cross depicts radio-activity, its biaxiality and four-fold polarity within and without; then it draws attention to the elementary cyclings and the inseparable union of straight line and circular movements in all of natures inner mobility and motivity —to the diapheromenon sympheromenon or the Chinese Yang Yin,—and finally it symbolizes the all-to-order setting power in the work of world-building,—the **four-footed diataxis** vested in the crossing-point of atomic biaxiality in all digest-centers,—it symbolizes the reciprocal workings between crossing-point and its periechon and the relative workings of arms and head when extended beyond the periechon in the environing periphora,—**the three legged diataxis** which provides means to ends of living,—it symbolizes the earthly rooting, but heaven aspiring hypomenon of true free agency character, which unites earthly sense with the eternal reason in the workings of world-wide vitality and brings the living self into harmony with the universal not-self.



With these and other cardinal ideas regarding the universal and individual features and phases of natural causation, stands connected all possible knowledge of the workings of life and death, the principal lines of which are indicated in the iconographic illustrations in the panels of the cross. These illustrations refer to the now unknown meaning of the Bible stories.

The cross in a circle has served humanity all over the earth in many ways to hold subjective thought to its fundamental consciousness of natural causation. May it continue to so serve humanity. Educational endeavors should never rely solely on alphabetical means for the enlightenment of mankind. Symbols are indispensable means to hold speaking thought to the **gist** of natural causation; and that **gist** works in radiant energy and in its periechon, which is symbolically represented by the cross in a circle. This cross has come as such a symbol into the Christian cult, and not as a tool of torture and death, as now conceived. The illustration shows a Celtic cross; Christ appears as the self-conscious determining character-power at the crossing-point, not as a God nailed to the cross, but as a Unifier or Harmonizer of universal and individual mind-power in the work of civilization.

The crossing-point gives all ferment and digest-centers four inner poles of inter-activity and counter-activity, alternating with that of their outer poles in cyclic work. This fourfold inner and outer alternation of polarity gives all ferment and digest-centers fourfold tendencies and capacities, one of which is a mere negligible tendency in ferment-centers, but it is an active capacity in digest centers and in cell-communities or families of digest-centers.

The tendencies and capacities of life evolve themselves into four characteristic factors in the organic advances of digest-centers —communities or families of digest-centers. These four factors, by drawing on the various kinds of nourishing substance in their environment and by their own work of successive redigestion, furnish the **four fundamental products of digestion** in their cyclic workings; they work **from protein to saccharine, from saccharine to spirituous substance, from spirituous substance to oily substance.** Protein and saccharine are produced mainly about the axis of the centrosome-digestion. Spirituous and oily substances are produced mainly about the axis of the nucleolus.

The two kinds of axial character-powers, which work in the cell and which produce these four kinds of digested substance, exert a fourfold influence upon vitality and divide it into four kinds of specially organic character-powers, each of which is specially capable of doing special work in the way of evolution. Two of these special character-powers work into highly organic evolution as free-lance-digester; the other two work in lateral ways as sewage-redeemers in the way of life. Thus four characteristic factors in digestive work lay the foundation for all further advance in organic evolution of cell-life and its conversion into organic bodies of all types and species.

The reciprocal interaction of nucleolus and centrosome within the digestive activity of the organic cell-community produces a special cell-string in which it vests the special organizing power as seed-energy for the propagative reproduction of the specially organic character-power in higher states of organic life. This character-power, vested in seed-energy, lives mainly by drawing on the field of world-wide vitality. It is a spirituous-oily power, strong in vital energy, vested in little matter, and therefore it is the reverse of the organic body-power of life, being produced by a polar reversal in redigestive activity.

The centrosome, in human life, making protein and saccharine, works most effectively in the morning; the nucleolus, making spirituous and oily mind-power and seed-energy, works more effectively at night. Therefore, should alcoholic stimulants, when needed to perfect digestion, to build up mind-power and seed-energy, be

taken at night and not in the morning.

The character-power in the field of conscious energy or vitality, when nourishing seed-energy, becomes partly embodied in the confines of seed-energy as modified seed-life; and as such it does at times modify the special character-power in the seed-energy, so as to take a new **step** in the way of evolution.

World-wide vitality, working digestively in connection with the local **periechon** of special character-power in the nourishing of seed-energy, carries along the work of evolution; and the character-power of world-wide vitality evolves itself correspondingly to its work, being nourished in return by the egestions of organic life into its periechon.

THE GENIUS OF EVOLUTION OR CREATION

Life is always a **compound** of universal and individual, creative and adaptive powers. When the individuality predominates in the compound-powers, then they work only in the ways of **development** and **reproduction** of organic types on their special level. But when universality becomes concentrated in seed-energy to predominate over individuality, then rises the Genius of Creation to take an upward **step** in the way of **evolving** more highly organic types of life and of refitting the existing types into their environment. The genius in the character-powers of the periechon partakes particularly in this refitting, by the digestive interaction with world-wide vitality.

The individuality in the compound of living character-power, which moves through the established way of development, is not the creative genius which humanity deified in its great cults, all alusions to **phallus** and **yoni** notwithstanding. These allusions originally were of the tropical type of rhetoric which used a physical picture to illustrate a mental fact. The fact, to which these allusions referred, was the character-power of world-wide vitality in its connection with the seed-energy, which it specially nourished, charged and overcharged, at times, with conscious energy and thereby endowed with additional organic powers. To illustrate: The gift of language refers to the endowment of the animal nature of man by the character-power active in the field of world-wide vitality; it refers to the special step of **evolution** in organs of speech. Therefore is the "**Creative word**" deified as Logos, Oum or Honover by various cults, in accordance with prosopopoia-rhetoric. Therefore, also, have we Fu-hsi's Pa Kua and eight God-systems to denote the cardinal changes of universal and individual powers within the compound of human life. Therefore, also, have we twelve god-systems to personify the adaptation-powers, particularly vested in the periechon, and heroes, saints and demi-gods with-

out number to personify temporarily predominant factors in the compound of the human mind.

The individually and specially human factor in the compound of mind, may be a genius, but it is not the genius of creation. It is lesser genius or imitative talent, making for cyclic **development** and reproduction—for formal changes, but not for essential ones—not for **steps** in the **evolution** of character-power.

The world-wide field of vitality in its interaction and counteraction with any individual periechon does the work of evolution; and that work is always done through seed-energy. The human body or the human factor in the compound of mind-power has nothing to do with evolution. Nor is thought-power ever any factor in evolution. Nature is not a thought-made fact; it is a process of life and death, by character-power determined and controlled.

The genius of human individuality is only the mortal part in the compound of living character-power. The mortal part predominates in the compound, during the earthly journey of life; it works in the way of sense, and it dies with the body, to stay dead until sewage has passed through its cyclic cource of disinfection and restoration to life.

The genius of human sense achieves much in one phase of the adaptation to environment, but it pays for these achievements by expenditure of vitality, without compensatory reaction in the **diataxis** of life. It lives usually to feed and please the senses, and it starves the mind. It ignores the world-wide field of vitality and its work in the human economy. The individually human genius is never altogether reasonable. It may be great in dealing relatively with the outwardness of facts, but it cannot readily understand the inwardness of life, its reciprocal workings and its essential requirements.

Instinct serves civilized life to better purpose than individual genius.

THE RECIPROCAL WORKINGS OF LIFE AND THE RELATIVE WORKINGS OF DEATH

The compound of living character-power in the digest-centers of all types of organic life works **reciprocally** in accordance with principles of life as a **digester** inmidst of approximately balanced counterforces or protoplastic conditions. The compound of non-vital character-energy in all ferment-centers works relatively in accordance with principles of death as a **fermenter** inmidst of unbalanced counterforces. It works in one-sided ways beset by one-sidedness.

The one-sidedness in non-vital fermentation finds its natural limits everywhere in time and place; within the solar system it finds these limits on the one side, in solar activity, on the other side within the confines of planetary activity. This one-sidedness reacts not only because of metabolings in its own counterforces, but perforce of confines set by the individual anammata of ferment-centers, as well as by the anamma which encloses the entire solar system. Thus reacting, the onesidedness ultimately results in a return to approximate state of balance somewhere between the extreme possibilities of unbalanced counterforces.

The **binding in** or sympheromenal, solidifying force in planetary aggregations of ferment-centers, such as compose the body of our earth, finds its limitation first, within its own character-activity and second, in the periphora without. The sympheromenal polarity, which does the binding-in of diapheromenal energy by overbalancing its polarity, depends itself on the nourishment which it receives from the **periphora**, and by that nourishment the lateral forces are given their limit of activity. The planetary ferment-centers, depending on the **periphora**, cannot bind in sufficient diapheromenal energy to explode, like powder; they can only gather it gradually in the due measure set by the diataxis, and so gathering it, they develop tendencies toward combustion—toward converting the planetary, sympheromenal character-centers into solar diapheromenal character-centers.

In the outward workings of the sun, the diapheromenal or loosening-out polarity overbalances the sympheromenal or binding-in polarity of ferment-centers, therefore is the sun a blazing body. The loosening-out force predominating over its binding-in counter-force, also has its limits, which makes solar combusion a slow and cosmic process. The limit in this case, as in the case of planets, is also set by the diataxis within the ferment-energy and by the periphora surrounding it and feeding it; for the solar fire is a process of fermentation, which must be fed. The feeding of ferment-centers, in either solar or planetary aggregations, controls the lateral strainings in all sewage work directly; and the **anammata** set a definite limit to the one-sided strainings.

THE WITHIN AND THE WITHOUT OF FACT

Primary and secondary causes are only aspects of the inner and outer activity of radio-active energy.

All causes of either living balance or non-vital one-sidedness in the process of nature are combinations of some inner atomic character-energy and of some corresponding periechon-energy. The periechon is the adaptation-power which might be considered

as a **secondary cause**, when compared with radio-active energy. The periechon is iconographically represented as having its hand joined to the inner atomic character-energy or **first cause** in every act of nature.

Radio-activity is the **First** of all causes and its periechon, or responder makes secondary causation possible. **First or original causes are inseparably united with secondary or adventiously working causes.** Destined order and fated accident work in unison.

Universal and individual tendencies and capacities of mind-powers form a unit in life, just as universal and indivdual energy form a unit in the working of non-vital sewage. Gods and men, of universal and individual vitality, join hands in the work of world-building, not only because living character is a compound of both universal and individual characteristics of knowing and doing-powers, but because the compound of character is radio-active within limits only, and it maintains itself only by virtue of its housings, which are the **indispensable means** to adaptation in an uncertain environment. The housing of living character is built by a consciously energetic periechon, a vital responder to outer needs of radio-active life within. This responder works with **fourfooted polarity** in accordance with principles of life toward inwardness. The housings of non-vital ferment-centers have an unconscious and merely energetic periechon which responds to inner radio-activity in a **three polar** way, according to principles of death. Remember the Triskele.

The non-vital periechon does so respond to its inner radio-activity, because non-vital ferment-characters cannot assimilate vitality from their environing field. When the vital pole of the biaxial character-center comes into predominance in the **enantiotrope**, then the two lateral poles take a **jump** forward and backward by self-division, and this **jump** makes four-fold polarity a three-fold procedure. (See Illustr. 53.)

The vital digestion of mental powers and the non-vital fermentation of physical energies work on the same principles of counter-procedures, but by different diataxis.

The polarity in the periechon of enclosed radio-activity takes the jumps not only in the sewage-work of nature, in the working of fire, light, electricity, water-workings, etc., in which there is one-sided binding-in and loosening-out of energy, but it does it also in the intellectual working of mental character-centers, when thought works syllogistically, when it ignores the Reason in all things, the world-wide field of vitality, and jumps at opinionated conclusions.

All these deadly or non-vital jumps notwithstanding, the cosmic work, as a whole, is one of harmony, for the principles of life work in harmony with the principles of death. The three-legged sewage work (Phtheiromenon) of the deadened matter, as of deadened reason in the visionary intellect, cannot escape eventual restoration to life's balance. As the unbalanced physical strainings in the sewage-workings in nature find their limit and return to protoplastic balance, so do the lateral strainings in man's mental and intellectual life find eventual restoration to life's order. All deviations from the balance in counter-straining forces are products of character-energy which does sewage work, no matter whether these deviations occur in the solar and planetary workings or in the workings of the civilized intellect. The syllogizing intellect is a sewage-worker. It puts the Civilizing Purpose into the Augean Stable. It lives inmidst of intellectual offal,—inmidst of the irrational opinions, theories, hypotheses, etc., which it, itself, produces. Reactions and counteractions in the eternal chain of causation catch and correct all disordered procedures, be they those of physical forces or those of the deranged intellect. The Greeks personified this catching and correcting power as the Dike.

There are no supernatural powers working in the world-process, unless we call the field of vitality supernatural; nor are there any mechanical forces working anywhere in nature. Ferment and digest-centers do all the work in a naturally limited order and equally limited lateral strainings. The words **supernatural** and **mechanical** are terminal adjectives which refer to one-sided aspects and to subjective, abstract conceptions or misconceptions of the **natural** process, if applied to it.

Nature is both God and man, life and death, conscious energy and unconscious matter; it is made so by the workings of fermentation and digestion in character-centers. Double-active, atomic, radiating character-forces and powers, working within and about well secured housings, build the world. Self-dividing character-centers countercycle in the way of life, as well as in the ways of death. They form the finely adjusted, well balanced organic work of life, as well as the immense aggregations of lateral, unbalanced sewage-work in solar systems. The balance of life's work is maintained by well-measured assimilation and elimination in digest-centers, and this measuring is one of **four-footed diataxis** in the alternations of **chresmosyne** and **koros.**

The unbalanced sewage-work in suns and planets proceeds much as does life by assimilation and elimination, **step** by **step** into and out of lateral strainings. The **steps** in sewage work are measured by **three-legged diataxes**; they find their limit in polarity

which cannot be transgressed, and from that limit the lateral **steps** lead backward, **through balance,** into opposite extremes of lateral strainings. The inanimate sewage-work is unbalanced, yet is it cosmic, being limited in its one-sided preponderance, on the one side by the loosening-out work of the sun, on the other side by the binding-in work of the planets. The planets in their courses form bands about the central sun. They do this, not as individual aggregations of ferment-centers, not as planetary bodies, but as factors in the periphora, which nourishes these aggregations, through the counter-cyclings of changeful polarity in the atomic character-centers within, and similarly through the housings, without. This nourishing of unbalanced ferment-centers from within and without, through counter-cycling polarity, makes all sewage-work one of cyclic counter-procedures, a **Phthora,** that is, a continuous movement from extremes of material solidification in the planets and of substantial rarefaction in the sun, back and forth, through the to-order-setting energy in the world-wide field which works inmidst of the lateral strainings in ferment-centers. In this to-order-setting, come to prevail the protoplastic conditions of vitality, where the character-forces in ferment-centers metabole into the character-powers of digest-centers by acquiring the capacity of assimilating vitality from the world-wide field of conscious energy.

The protoplastic conditions always prevail somewhere in all solar systems, for the sewage-ferment must pass the **norm** of balance, somewhere in its counter-cyclings, between the extremes of solar-planetary polarity; therefore is life a continuous process, here or there, now on terra firma, now in mid-air, in the periphora always, no matter through what state of development and encelopment suns and planets may pass. The stuff of existence in solar systems is always somewhere in protoplastic balance, and in this condition of balance, the character-centers can draw on the world-wide field of conscious energy, and so drawing, life forms its universal and individual compound of conscious character-power and marches up and down the **steps** in the **ladder of evolution** and involution of vital powers, notwithstanding all metamorphic changes in the sewage workings of sun and planets. These metamorphic sewage-workings prepare protoplasm at all times during their cyclic course of development and envelopment from the minutest origin of planets, through their growth and ultimate conversion into suns and the dissolution of these solar aggregations of sewage.

Life is not burnt up by solar fire. Solar fire is a local and temporary occurrence here and there in the eternal process of living and dying. Solar fires will never burn up the world; they react into

planetary **water-workings**—exygransis.

The fields of world-wide substantial and conscious energy in their great counter-rotations about the world-axis control all cosmic workings by their penetration or nourishing connection with atomic character-energy of ferment-centers and digest-centers. The substantial field controls the non-vital sewage-work; the field of conscious energy controls the workings of life.

The great rotations of the world-wide fields about the world-axis produce the Great Year of cyclic recurrence, the apokatastasis in life and sewage-work, — the metamorphoses from minute planetary systems to immense systems, from immense systems to minute systems, — from systems which produce more and more planets to systems which gradually reduce the number of their planets, and which find their final dissolution in bi-stellar systems. As solar systems metamorphose, so metamorphoses life, which produces the systems.

Atomic character-power works only in spherical ways, collectively as well as individually.

The **Phthora**, or counter-cyclings of sewage and its character-centers about solar and planetary poles, and the **Tao**, or counter-cyclings of protoplasm and its character-powers midway between the poles of the Phthora about the union of individual axes with the world-axis, give the solar-planetary system or spherical shape of which the protoplastic interplanetary way of life forms the equator in the direction of the ecliptic.

This sphere is biaxial; it has two double-active north poles and two double-active south-poles through which sun and planets and their emanation of substance and matter counter-cycle throughout the Great Year, and counter-cycling, interact with the universe at all times. The solar systems are cells in the body of the universe; they interact with the universe.

The solar systems work in accordance with the same principles of life and death which control cell-life. Atomic character-energy, working through biaxiality in the crossing-point of the world-axis with the individual axes, does the work in both, the entire solar system and the microscopic cell. If this character-energy were not atomic, that is, of indivisibly dual energy, then there could be no compensation to the expense of activity, and then the universal work of nature would come to an end, it could not be eternal. It would run down like a clock which works by winding up a weight.

The work of the solar system differs from that of the microscopic cell, in compensatory principles of procedure. The **relative** principles of death predominate in the sewage work of the solar

system, while the **reciprocal** principles of life predominate in the cell. We must never forget that cell-life works in a **fourfold** way through its poles with all four fields in the periphora, while sewage-work is a three-legged way, because the field of conscious energy is not actually assimilated by the ferment-centers which it penetrates, that is, not before the ferment-centers merge their character-forces into the powers of protoplastic digest-centers in the **enentiodromia** or countermarch of character-energies.

There is much evidence of dead sewage work in our solar systems and but little evidence of life. There is much evidence of life and little evidence of sewage-work within microscopic cell-life, yet is the world equally divided between the workings of life and death.

Self-division of atomic character-energy propagates all powers of life and forces of death—from life to sewage, from sewage to life.

The same tendencies to self-division, which multiply cell-life (karyokenesis), are active in the entirety of the solar system.

When the collective character-forces, active in a planet, metabole into solar distributive character-centers, as they always do in course of time, then they work through the confines of their cell, through the anamma of the solar-system, taking with them their satellites and planetoids and converting them into planets of their own new system. Thus new solar systems are budding on the old system, or separating from it by self-division. The planet Jupiter is beginning to show the tendencies that its binding-in character-force will eventually metabole into distributive, solar character-force. (Illustr. 48.) Jupiter, however, is yet a long distance from becoming a sun and a center of a new planetary system; this planet will probably grow as large as our sun and larger, before its planetary collective character-centers actually metabole into solar, distributive, character-centers.

Our solar system is one of numerous planets and one of advancing evolution of life, and as such it should produce larger and larger planets.

The visible bi-stellar systems are retrogressive systems in an advanced stage; they make for dissolution of the solar system, for their gradual reduction to granular nebulous miasses and corresponding retrogression in the evolution of organic life. (Illustr. 44.) The one planet in a bistellar system acts like an inverted or wayward comet, abandoning its dissolving sun. Comets seem to act as leucocytes, free-lance bodies in the body of the universe. They seem to be sidereal free-lancers. They certainly have a diapheromenal power exceeding anything else within this solar system, and they probably did not collect this power in this system.

They work toward closer connection with the world-axis, into the field of substantial energy.

EVOLUTION

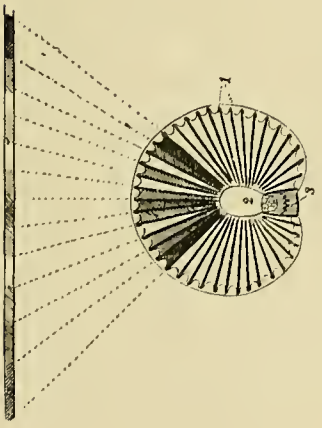
Radio-active energy divides the stuff of existence into character-forms of life and death. Life, vitality, evolves special consciousness and mind-power. Mind-power evolves special knowing-powers and thought-power.

The individual knowing powers can act only by their connection with universal vitality and consciousness. Neither mind-power nor thought-power can act at a distance; both produce knowledge only by interaction and counteraction with universal vitality and consciousness.

World-wide character-forms interact with individual character-forms in life and death; in life more or less consciously or knowingly; in death by force of more or less physical energy.

The world-wide field of substantial and conscious energy makes it possible for us to look through our solar system into the universe. The character-powers of the eye and that in the concentrated vital energy of our self-conscious mind-power assimilate the conscious energy coming from the universal field of vitality. (See illustr. 137.)

Illustration. 137. A diagram showing the principle of sight in a primitive eye of low organic structure.



1. The individual character-centers in the eye and their limitation.

2. The collective workings of the individual character-centers, unified in the axial workings of the eye or organic communities of mental digest-centers, having special capacity of sight.

3. The epithelial cells where the second redigestion of the collected effects takes place; from where the digestively working nerves transmit the effect by redigestion to the brain-cells, where another redigestion takes place, producing the finally vital effect upon the mind-power or life of the insect. The object seen, in this case a variously shaded plate, stands as always removed from the active character-centers in the eye. These centers could not reach the plate, if the intervening field of vitality did not bring them into contact with the plate. Only vitality can see, as only vitality can speak, through and to vitality. The non-vital ferment-centers could not interact with the vital character-powers if the fields of substantial and conscious energy did not co-operate to produce protoplastic conditions in the intervening fields and to bring distant factors of living and dying in contact with each other.

Seeing and knowing are digestive and redigestive processes; and variously qualified character-energies do the digesting.

THE WORLD IS A SPHAEROS AND NOT A MATHEMATICALLY WORKING SPHERE

The solar-planetary system is not a mere sphere, but a sphaeros of harmoniously interacting character-energies of life and death in digest and ferment-centers; and this interaction takes place through changeful polarity of the character-powers or forces. The changefulness in the four double-active poles makes the universal and individual interaction one of rhythmic harmony and not merely a mechanical process, as prosaic language and mechanically working thought would make it appear. The old-time expression "**Harmony of the spheres**" rests upon some footing in fact, although astronomical dreamers have made it appear ridiculous. We live in a **sphaeros** and as a **sphaeros;** and this **sphaeros** must not be conceived as anything like a mathematical sphere. Fact, nature's activity,**as it is in itself,** must not be considered through mathematical spectacles. Mathematic ideas serve surface-aspects of fact only; they always present the workings of life in abstract and non-vital ways. They serve in the considerations of phaenomena and in the special workings of the senses and of the merely sensible but unreasonable intellect; but they do not serve the considerations of Fact, **as it is in itself;** they are not applicable to judging the reason or causes of nature's activity.

Phaenomena are not facts in their integrity, they are only sensible abstracts of facts or acts of nature; they are only perceptible evidences of nature's activity. There is more to the world than the senses bring into our way of knowing. Our natural way of knowing "Fact" leads our thinking faculties beyond phaenomena and apparent conditions into the very workshop of nature and into connection with the eternal chain of causation. Being thus led, human thought may become cognizant of all the universal and of much individual work done in nature's workshop.

The active causes of evolution, which have produced the faculties of sense and of thought out of the compound of universal and individual vitality, are among the facts knowable to us. If thought is made to take hold of the chain of causation, it can work forward and backward through the cycles of time, and it can comprehend and hold to the active principles of life and of death.

The mind which ignores the universal vitality in which it lives, cannot go beyond its own limitation of subjective ideas, manufactured in its workshop of thought without any truly objective knowledge of Fact. All the ideas which the subjectively thinking mind can manufacture are lifeless pictures or hollow, pointless housings (peripetasma) of the self-sufficient intellect. When these ideas presume to represent life, they act as intellectual fabrications.

THE INCOMPETENCY OF THE SINGLE-ACTIVE INTELLECT TO COMPREHEND THE DOUBLE-ACTIVE WORKINGS OF NATURE

An eminent astronomer has recently asserted that not more than fifty men living understand the fundamental bearings of higher mathematics. He referred to variable integrals as known to our mathematicians. These integrals, he imagined, had something to do with the workings of nature.

The mathematician, like the chemist, or the theologian, or the philosopher, etc., usually imagines that his particular aspect of fact can lead to explaining the entire work of creation; he imagines his hold on Truth to be so firm that just another thought will reveal all the secret workings of nature to him. These imaginations are a species of learnedly acquired ignorance and of opinionated insanity. There is no possibility of telling the truth about the workings of nature by the ways and means which our great thinkers employ in their attempts of elucidating facts, yet is nature an open book to the naturally working mind; that is, the human mind has powers to open the book, to enter nature's workshop, and to read and know all there is to be known. The mind can do it, if it puts thought on the right track and provides the right sort of means for its procedure. But the modern mind does not do anything of the sort. It works in single-track ways to explain the double-active workings of nature, hence the thinking world remains ignorant of the most palpable facts; indeed, it becomes more and more ignorant of its own workings and of those of nature the further it advances in its unnatural ways of thinking. None so ignorant as those who think in unnatural ways and vest their conclusions of thought into positive terms.

Mathematics are products of an unnatural way of thinking.

The positively expressed conclusions of mathematically working thought are excessively delusive. Mathematical ideas have nothing whatever to do with the workings of nature, but they have much to do with the "deuteronominal" workings of thought, and they are of great value in the technical work in civilization.

The word "**deuteronomenal**" I use in its original meaning, which is unknown to our thinkers; it refers to the rules and laws which technical thought manufactures to facilitate its own workings. If the meaning of the Biblical Pentateuch were known to our thinkers, the word Deuteronomy would point to the proper relationship of mathematical ideas to the other factors in the workings of the intellect, and our great thinkers could not deceive themselves by mathematical figments.

All there is to be known about nature can be summed up in the workings of life toward death and the workings of death

toward life, in the interdependence of these workings, and in their dependence on the **variable regularity** which moves inmidst of accidental interaction of things. This interdependence and this dependence are certainly a matter which can be determined by integrals and differentials; but the integrals and differentials known to our mathematicians are not the kind to serve that purpose. Therefore, will no mathematician, who relies on his knowledge of integrals, ever be able to tell the truth about nature. Our greatest mathematicians have yet to learn that their constant factor is a faulty conception of changeful regularity.

The fifty men, if fifty there are, who understand the fundamental bearings of higher mathematics, are fifty hopelessly deluded thinkers.

The study of nature is one of the workings of life and death, and nothing more; for there is nothing else taking place in the workshop of nature. In the workshops of thought, however, there are a million of subjects under consideration, many of which flit like spooks about the intellectually benighted mind. All these subjects have their natural but ignored center in **one** double-study, the study of life and death—of biology and astronomy. If this double-study were thoroughly mastered, then ninety per cent of our esteemed learning would appear as worthless junk. Why are these studies not mastered? Language furnishes us no means to master them. The school of Alexandria labored for centuries to master these studies; it failed utterly in the end, yet were the means to master the study within its reach. The need of these means was not discovered. This need remains unrecognized to this day. The modern intellect is rich in the prosaic or "**Prakrit**" type of language, but the rhythmic or "**Sanscrit**" type is forever lost to its comprehension. That rhythmic type of rhetoric is needed to tell the truth about the ryhthmic workings of life and death,—the rhythmic ebb and flow of the countercyclings of nature's double-track way.

In order to make the workings of life and death known comprehensively in their interdependence and dependence on the **one constant factor** of variable regularity in cosmic order, or the one invariable integral which may represent this factor, we must have words to focalize our thoughts in this factor or its integral. That integral represents the cosmic counter-cyclings of the stuff of existence about the world-axis and about the individual axes in all radio-active atomic character-centers. The crossing-point between these two axes determines the cosmic workings in life and death. All the workings of nature correspond to and deviate from this determination in these counter-cyclings. This correspondence and

this deviation, we must take note of in all our objective and comprehensive ways of thinking; and this we cannot do, if language does not serve this purpose.

Language controls our way of thinking; it extends or contracts the limits of our but partially developed thinking powers. By means of our analytic language, we can only describe nature's work in detail, but not comprehensively.

All I have said in the foregoing pages is fragmentary; it consists of mere hints at facts. A little is said, here and there, about this or that aspect of causation; but much more, that should have been said, is left unmentioned. What mind can put the details mentioned, into comprehensive form and into accordance with the cosmic workings in the changeful character-energies of life and death?

The school of Herakleitos could not do truly comprehensive work. It had better means to do it than we have. The millions of great thinkers in the school of Alexandria could not grasp the meaning of the words of Herakleitos. His verbal hints were too slim and dim. And so probably are mine in the foregoing pages; all are fragmentary and one-sided statements, and all these statements imply contradictions to the terminologically working mind, which cannot supply and correct the one-sidedness and shortcomings of analytic language. Language, which can serve the purpose of knowing the workings of life and death, must be evolved in accordance with the principles of life and death; it must be so evolved in order to serve the purposes of telling the truth about fact. The language of the human race in forgotten ages had been so evolved. The old-man-genius of **Spoken-Thought**, who spoke comprehensively from and to self-consciousness in the rhythmic type of language worked in harmony with the boy-genius of **Speaking-Thought**, who spoke analytically to self-consciousness from special consciousness in the prosaic type of language. This harmonious work made the workings of life and death, the world-process, known. It put Fervers into the intellectual sky. (Illustr. 59.) Historic ages lost the use of the rhythmic type of rhetoric, and this loss has blinded mankind to its natural sight of the eternal chain of causation.

The exclusive use of terminological language has made the human intellect a single-track worker, which cannot follow the double-track way of nature's counter-cycling procedures. Therefore is nature's evident way of working an impenetrable mystery to the unnaturally working intellect.

What evolved the powers of thought in natural ways during bygone ages in humanity? The thorough knowledge of the regu-

larity in variable factors in the chain of eternal causation. That knowledge was evolved by the natural uses of language; it became vested in language, it evolved the powers of Right-thinking and Right-speaking in the civilized mind, and it eventually became focalized in the knowledge of the integrals and differentials of life and death which had been put into a comprehensive formula to draw the attention of thoughtful minds to the gist of fact.

The natural tendencies of the mind to think in natural ways do not suffice to hold the thinking faculties to the ways of life and death and to evolve comprehensive forms of language in the masses of the people. Formulas, tangible and plain to both eye and ear, are needed to effectually evolve the powers of thought and language. Fu-hsi did provide these formulas, so perhaps did other now unknown thinkers. The archeological remains of our North American aborigines swarm with ideograms which had their origin in comprehensive knowledge of fact. The well pointed consistency of these ideograms could not have been maintained, had the forgotten and presumably aboriginal races not been in the possession of clear and comprehensive formulas of the integrals and differentials, representative of the regularity in the workings of life and death. These races either had Fu-hsi's or other formulas to guide their intellectual powers.

The formulas of Fu-hsi have not been intelligible to anyone for at least 5,000 years, hence the comprehensive type of language has been lost and confusion of ideas has ruled and ruined all historic civilization.

If not more than fifty living thinkers can comprehend the bearings of our mathematical integrals and differentials, how many living thinkers could comprehend the variable integrals which represent the changeful regularity in the workings of life and death? These integrals, denoting changefulness, cannot be put very well into fixed definitions of words, for the powers and forces which these integrals seek to determine are not fixtures, but changeful factors in the process of nature. The changefulness cannot be elucidated by fixed ideas. It is a matter of essential and reciprocally interactive relationship between one regulating factor and a number of regulated factors. This relationship must be referred to by **cardinals of language and by personifications of changeful character-powers,** in order to make the workings of natural causation clear to the thinking mind. The necessary cardinals and personifications do not exist in our language; at least not in available forms. They do figure in the Bible-work, but they are unknown to both theologians and laymen. All that remains of them are the rusty tools in the unopened tool-chest of the Christian cult.

Cardinals of language are tenets which hold thought to the inner order of the workshop of nature.

How much ability has the modern mind to understand cardinals of language which can hold subjective thought to objective fact? Who can bring himself to understand the **one regularity** of changefulness in inner and outer causation of nature's cosmic and eternal workings? That **regularity** is the essence of all matter-of-fact knowledge. If this **regularity** is not known, then thought has nothing to hold to, it has not firm hold on fact; and then all knowledge is largely a make-believe. It cannot be more than a surface knowledge of phaenomenal changes, and this sort of knowledge leads thought into uncertain conjectures as to causation; it leads it into guess-work and into the realm of delusive opinions.

In the knowledge of inwardness is based the element of certainty in truthfulness or correspondence of intellectual workings to nature's workings. **Through the knowledge of outwardness and its accidental interactions enters the element of uncertainty.**

The knowledge of both inwardness and outwardness in their natural connection furnishes the living criterium of certitude to the thinking intellect. This certainty is obtainable through the cultvation of the intuitive consciousness of principles of procedure, active in life and death—the J. H. V. H.—the Tetragrammaton of the Bible-work or better through Fu-hsi's Pa Kua and its connection with Chinese cosmogony.

Certainty with regard to cause and consequence is not a property of the modern mind.

The **One Law of Nature is** belied and obscured by the many laws which the modern intellect has formulated and is still engaged informulating, all its natural ignorance of fact notwithstanding.

The outward working intellect ignores and belies the inward workings of mind.

The single-tracked intellect is untrue to the double-track workings of either life or death.. By virtue of inwardness do we live. By limiting our natural ability of knowing to outwardness only, do we force the organic order of inwardness into the non-organic systems of outwardness,—into systems which unnatural ignorance constructs.

Even Aristotle could see the folly of manufacturing world-laws out of trfling observations by generalizing particularities.

Why is the inwardness of our nature unknown and almost unknowable to modern life and mind? Because it cannot be put into the prosaic and grammatical type of rhetoric, by means of which the modern mind manufactures knowledge or is enlightened. Microscope and telescope do not make the inwardness of fact known.

Variable integrals in mathematical or other academic studies do not make it known. Analysis of self consciousness may or might make it known, but mythical pictures and stories which represent the products of this analysis are needed and they are lacking or now unintellibible to enlightened thought; they are based on the unknown cardinals of speech.

All mythical pictures and character names represent changeful factors in mind-power; all these factors are working on the principles which control nature and human life. This fact is not even known as yet to our great students of antiquity, nor to our theological Bible-students.

The workings of all factors in mind-power are knowable in all their inward changefulness; and their knowledge makes the world-process knowable in its integrity with due certainty.

Strange as it may seem, the feminine mind can grasp the inward workings of mind and of life more readily than can the masculine mind, if that inwardness be represented through the eye by character-picture, symbol, etc., or through the ear by mythical story in spoken words; but not by mere reading of prosaic expositions of fact.

Why not?

There is a life in the properly spoken sound which is not in the visible letter; and that life brings out the inner meaning of verbal hints and of poetic myths, that is, it brings out the character-power in the workings of mind and of spoken thought, the anagogies which elucidate the workings of mind powers by verbal picture. An hour with Homer, properly explaining the acting characters and their doings by living sound gives a fuller understanding of the meaning of the Homeric work than a life-time of reading and of alphabetical study. The poetic rythm is indispensible to the full understanding of the poetic thought. Only poetic thought can fairly represent the harmonious workings of the inwardness and outwardness in nature and life. Prosy rhetoric deludes the intellect; it teaches words and not facts; it deals with details, analytically, but not comprehensively. The details, I have attempted to give in the foregoing pages, the comprehensive picture I cannot give in the prosaic terms at my command as fully as it should be given. The self-conscious mind must form it by virtue of its own inner powers. The details given are all fragmentary and onesided representations. All need the supplemental work of the self-conscious mind to become actual knowledge of both, the inwardness and the outwardness of fact, as it is in itself.

Cosmos and life are products of the harmonious to-order-setting of discordant elementary counter-forces. Neither life nor

mind is any all-animating poetic power nor is either solely a force of deadly prose. Both are harmonious compounds of discords. If it be true that **War** is the father of all things, as said the Greek fact-knowers, it is equally true that **war** is not the mother of anything in existence. The genius of creation is arrhenothelous, said the Egyptians, who had solved the riddle of the Sphinx—the problem of double crossings in the counter-cyclings of life and death. Every active character-power has its passive double; and this double does not always remain passive. This fact goes to the very root of all alleged problems of life and it is therefore worth remembering. Life and death, happiness and sorrow swing on one hinge.

Prosy terminological language has been a potent factor in the untimely disintegrations and destructions of historic nations; it has been such a factor, because it has blinded the thinking ego to the inner workings of life, and its fundamental necessities; it has destroyed the integrity of human character; it has emasculated the thinking mind and made the propagation of vitally true ideas impossible. Terminological language has made the thinking ego an opinion-monger, who **"deceiveth all mankind."**

Kneph, the language-giver and hence man-maker, so intellectualizes human self-consciousness, that civilized character evolves a double-active, well-balanced, to-order-setting, determining power—a logos dioikon—a hypomenon. Man's character is naturally, fundamentally double-active and balanced in accordance with the order of life, as is all living character.

The true use of language can so intellectualize human character that it retains its natural balance the lateral strainings in double-activity notwithstanding. The undue use of language makes man's intellectualized character a single-active apparatus and leads it into this or that lateral death-going endeavor. Kneph, the "Go-right" father of the "upright basilisk" of intellectuality, knows the lateral strainings in human nature, as indicated by the horns on his Ram's head, which denotes the gregarious tendencies in man, leading to civilizing endeavors. But, though knowing the lateral strainings, Kneph uses his arms or doing-powers in the one direction of to-order-setting. He so intellectualizes the mind that the compound of dual character moves forward in the way of life, in predominant and subservient endeavors as shown by the position of the two figures which he moulds. He makes the dual character-power in man, the free agent, an absolute determinor or King in the world of character. This work, of course, is done by use of language in the workshop of thought, as indicated by the hand-made table upon which stands the double character of man. The to-order-setting "Word" or power of language has determined the making of this table, and thus furnished the understanding, for the evolution of human character. Therefore is the "Word" from the mouth of Kneph a creative genius—a true scion of Sokhet Ialu, the "world-wide field of vitality, at rest."

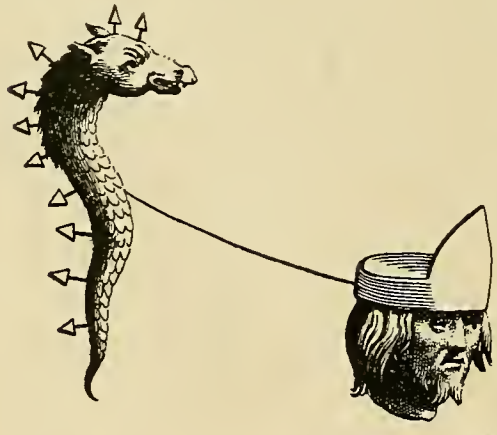
To further illustrate the differences in effect of the human voice, which works through vitality connecting life to life, from that of any printed words which work in no way true to either life or death, I will mention the problem of tides. Our leading thinkers have made various attempts at elucidating the causes of tides. All the elucidations presented by scientific thought are self-evidently untrue to fact. The tides work in the double-active way of nature simultaneously into the opposite directions of **"extent."** The active causes of this double-movement, I could easily present in convincing form to any normal mind by a few minutes discussion of the subject and by a few diagrams, showing the causes of regularity in the variable factors; but if I should attempt to explain these causes in writing by the words intelligible to any mind, I would have to cover many pages. I would have to drag more words out of Herakleitos' vocabulary than I have done so far, and

Kneph, from whose mouth came the **"Egg of humanity-making language,"** the archetype of character-power in human speech, figures as a creative genius who molds the original animal-character of man into a civilized character of double form, by two-fold use of language; one form and use for the evolution and exercise of inner Reason (logos), another for the use of outer Sense (periechon); both unified in Free-agency will-power.

When the power of articulate speech was evolved in man, the consciousness of the World-law was evolved with it, and so was the ability to make rightful use of language—logos dioikon.

The ancient Americans had a way similar to that of the Egyptian of presenting the double powers on self-conscious determination. They drew a royal head, denoting the determining power in one of their ten cyclic dynasties, crowning it with a sort of "Logos-sign" in the form of a circle with a Kyriological pointer at the gist of Fact; and they connected the head thus crowned with a symbol denoting the dominant characteristic in the periechon-powers which distinguish that dynasty from other dynasties.

Illustration 170 represents Itzioatl of the fourth Mexican dynasty. The individuality of a happen-to-be king cuts no figure anywhere in ancient iconography. The kings are named and depicted in accordance with specially dominant characters in the changeful types of civilization during its course of development. This King has, like all mythical kings, a divine double-active determining power, but it is inspired by the serpent Itzils, the symbol of delusive intellectuality, the king's "double." And that intellectuality does the thinking. It is the dominant factor in the periechon power which characterizes, not the happen-to-be king, but that special fourth type of civilization in the cycle of social development.



This telling symbol fits our times. Note the troubled face of Itzcoatl.

I might accomplish no more than placing a verbal puzzle before the mind. Yet are the causes of tides easily knowable and easily explained by word of mouth. These causes are of a simple, non-vital, three-legged, relatively working kind. Remember the trident of Poseidos. Science, which deals in the ways of three-legged analogy with the relative, non-vital workings of nature, should have no difficulty in discerning these causes, but it has insurmountable difficulties. No scientist alive will ever be able to explain the causes of tides truthfully. Why not? The scientifically trained mind works in accordance with the prosaic use of words in which the deadly printing press speaks at the living mind. The printing press and the living voice have two very different effects upon the mind. The voice has a little rhythm at its worst use. The printing press never has any such rhythm, even at its best modern use.

The alphabets are so very abstract, that they who rely solely on their use cannot even follow the three-legged way of death.

Li T'ieh Kuai Hsien, the least of the Eight Immortal personifications of factors in the civilizing instinct, can work his way through the workshop of nature by means of his tropical or flowery rhetoric, while the alphabetically enlightened and prosaic mind cannot even enter this workshop. (See Illustr. 138.) Old Li still has a hold on the cardinals of Spoken Thought.

There are only three factors active in rhythmic throbbings and pulsations of nature's deadly sewage-workings of which the

Illustr. 138. Li T'ieh Kuai Hsien.

The last and the least of the "Eight Immortals" who elucidated the workings of Death toward and away from the Tao or way of life. He personifies the K'wan trigram in the Pa Kua.

This immortal old Li is reputed dead, but he still does the work of a spook in the surviving civilizing instinct. He has a million of degenerate descendants of the intellectualized kind who do ghostly work in civilization. Aggressive Sense ever — Comforting Reason never. This Hsien walks by the aid of the syllogistic stick cut from the living tree of knowledge, but he is a means-providing genius, who makes the mortal housing fit the eternal character. In this ideogram, he is placed into opposition of the symbolic gourd—the long-life sustaining ganglion—the gland which is the home of mental energy.

tidal movements in our oceans are an evidence. Three words should suffice to make these three factors known, but we have not the words and the factors will remain unknown, because no living intellect can produce the words.

In order to explain the causes of tides by our words, we would have to explain the entire workings in the eternal chain of causation and the **one law of nature** which is equally applicable to life and death. The explanation of the causes of tides would virtually have to be a complete elucidation of the world-process; or at least of the astronomical non-vital half of this process, vitality not having any active hand in tides. This explanation, if given in spoken words, is far easier made convincingly effective than in printed pages. The voice naturally follows the principles of life and death, if it is not entirely corrupted by intellectual training. And in animated discussions the voice makes the opposing minds meet and part in assent and dissent of digesting consciousness and in assimilation and eliminaton of digested conscousness. Mental digestion and redigestion, under the stimulus of a rhythmic voice, evolves Living Truth far easier than the study of printed words.

The study of astronomy, as it should be pursued, is the study of Death. The study of biology is the study of life, if properly pursued; but who pursues it properly?

Life cannot be known in its essential workings, if death be not known in its workings.

The study of biology and astronomy is but one double-study of nature's double-activity. The study of both modern astronomy and biology is puerile, delusive and devoid of truthful results. And equally so is the study of mathematics, if applied to astronomy, or of chemistry, if applied to life.

What the modern mathematicians know about integrals and differentials is not applicable to any changes which take place within the workshop of nature.

The study of biology and astronomy, in fact the study of

Illustration 139. The ensign of the ancient American city of **Xochitzinco** (meaning literally: "At the end of the flowery field or season"—after expulsion from paradise, our theologians would put it). When civilization comes under the rule of "Speaking Thought," the Boy-genius, who knows not his origin in the Old-man-genius of "Spoken Thought" (see Illustr. 59), then suffers man the inflictions of unnatural ignorance by wordy learning acquired. The mind which judges cause and consequence, without considering the character-powers active in heaven and on earth, jumps at irrational, headless, characterless conclusions, although it may speak learnedly and even poetically of the ups and downs in life. Civilization produces many learned and poetic liars, and few truth-tellers.

nature, must be commenced by the study of language, if a truthful picture of fact is to be produced by the thinking mind. Logic and Logos are the twins in the Tai-Kih which evolve Li and Ki,—the knowing and doing-character and its fitting form.

Syllogizing in dictionary terms builds up self-sufficient thought at the expense of mind-power, until the thinker imagines that he can improve the work of creation—or that the world is a thought-made thing.

Character-names and indefinite hints at fact by picture and tropical phrase are less deceptive than grammatical sentences framed by positive thought out of well defined terms; for those pictures and phrases help the mind to digest detailed knowledge and put all intellectual work in a living comprehensive form.

Having studied details and formed detailed ideas, it is necessary to study their mental digestion in order to put them into comprehensive form by means of poetic cardinals of speech, whatever they may be. The original Bible-work was based on cardinal of language. The knowledge of these cardinals seems lost. I doubt that any living theologian has even an approximate conception of them.

Remember, first of all: Vitality is a compound of cosmic continuity and of temporality—of life-giving and death-going energy in the stuff of existence. Remember: **The meeting and the parting in life's eternal way—the diadonic* and the synadonic counter-cyclings** of the stuff of existence, ever moving through the world-building focus of character-power. Along these counter-cyclings moves the spirit of all songs of songs. To these counter-cyclings refer the variable intergrals of life and of death which formulate the ever **whole** character-power and its ever **not-whole** means to cosmic order—**the Oulos and the Ouchi Oulos**, speaking poetically, which produces the harmony between the mind-making and body-making-powers in the counter-cycling fields of the entire periphora as well as in the periechon of every individual digest-center, for all

Stobaeus, Eglogae physicae et ethicae. *„συνάψειας οὖλα καὶ οὐχὶ οὖλα, συμφερόμενον [καὶ] διαφερόμενον, συνᾷδον [καὶ] διᾷδον καὶ ἐξ πάντων ἓν καὶ ἐξ ἑνὸς πάντα“*

The legomenon of Herakleitos, formulating the **Logic of Life**, carries with it the ancient Chinese odour of integral and differential eausation.

"Unite (rationally) the continuously working character-power **(whole)** and the temporarily working sense-power **(not-whole)**—that which carries together and that which carries apart,—the harmony within and without,—and out of all one, out of one all."

The words "diadonic and synadonic" refer to the **polar adjustment**, within and without the crossing-point and its periechon. This adjustment is the integral cause of all cosmic order, formulated in Fu hsi's Kua.

the stuff of existence undergoes individual to-order-setting by the focus of character-energy in both the procedures of life and of death.

In the biological aspect of life the poetic **Oulos** is now called nucleolus and the **Ouchi Oulos** is known as centrosome. The nucleolus comes from and draws upon the mind-making continuity of life. The centrosome comes from and feeds upon the body-making fields, whose work gives temporary vestment to the eternal mind-making vitality. The outwardness of life's procedures are represented in the biological illustrations produced in this volume. The inwardness of these same procedures appears as the subject in the sacred poetry of antiquity, but not in Homeric epics.

In the physiological aspect of the process of existence the two counter-active and interactive integrals,—**the whole** and **the not-whole**—the **"eternal continuity"** of cosmic order and the **"timely"** form must be understood as underlying all metamorphoses in nature, all phaenomena of life and death, all electromagnetic phaenomena, the making of fire and of water, dry or wet matter, ice, minerals, vitality, mind-power, thought-power, etc., etc.

As the digest-centers come together in the cell-family of life, so do the ferment-centers come together in solar and planetary aggregations in nature's non-vital work. To illustrate: A number of electrons fly together about a focus for a moment to form what modern scientists misname an "atom"; this coming together strengthens the focus by putting part of the electrons' energy into the aggregating focus and allowing the remaining part to fly apart as negative electricity. (See Illustr. 41.) As with electricity, so with magnetism, light, heat, fire, life, mind, thought, and every visible or invisible product in nature; the **meeting and the parting** of the two double-active factors in character-focalization produce the **one and all** or everything in life and death. The principle of procedure is always and everywhere the same; the continuity-power meets the not-continuous, timely and alternating vestment-power in the **crossing-point** or to-order-setting focus. The integral powers by self-division, meet the differential forces to make one harmonious whole and to part as lateral strainings in digestion as well as in world-wide fermentation.

The two united tad-poles in the Chinese Tai-kih part to send Li upward and Ki downward. Li and Ki meet again in the return cycle to part again, ever onward, upward and downward—Lao and Tzu. The **whole lines** and the **not-whole lines** in the Pa Kua (see Illustr. 118) illustrate the variable integrals of life and of death in the whole process of existence. The counter-cyclings of the lines produce the individual Trigrams, and these trigrams show the changeful inwardness in the status of character-power, in all fer-

ment and digest-centers, in all the phases of the world-process—in the physical, the mental and the intellectual phases of the process —in life and death, in nature as well as in nation and civilization.

The Tchy, surrounding the Kua, shows the outer-cyclings of the periechon in its interaction with and counteraction upon inner character-powers, out of the central Tai-kih evolved. The continuity of **Native Reason** characterizes the world-wide field of vitality. It divides itself at all times in the counter-cyclings of the two pairs of fields in the periphora to give itself temporary vestment in inner and outer sense. The vestment divides itself to advance partly into the undivided part of Native Reason and partly to retreat deathward. The work of the vestment-making centrosome nourishes the nucleolus of Native Reason, as Native Reason in that nucleolus nourishes inner and outer sense, in part. And this mutual nourishing is the **reciprocal** work of life—it follows **reciprocal** principles, but it is accompanied by **relative** work, by death-going work which proceeds on **relative** principles.

The entire work of nature in life and death is one of ryhthmic harmony, within and without, but harmony implies discordant elements. The Pa-Kua represents the inner harmony and the Tchy, the outer influences upon it. The union of the two makes the **Fact** —the **Sphaeros.**

Language, used so as to tell the truth about nature, must adjust itself to both, the harmony within and without; it must be rhythmic, poetic as were all sacred writings, if it aims to deal with the inwardness of causation. Prosaic language cannot be brought into truthful harmony with nature's inner workings. The prosaic rendering of the Bible-work is not truthful.

The study of psychology is one of rhythmic harmony and must adhere to rhythmic forms of speech. Psychological work, like that of Homer or of the Vedas, cannot be given in its original meaning by prosy translations or by mere rhyme-writing.

A thousand volumes of prosaic Upanishads would not make one original volume of the Vedas.

All prosy explanations are delusive when there is no poetic and comprehensive digest-power of mind. The prosy, mechanically thinking mind can only do mechanical work; it cannot do vital work.

The modern intellect sneers at the absurdity of belief in an absentee god and at other visions of mechanically minded theologians. Yet every scientist talks of absentee forces and of things which act at a distance; but such things exist nowhere in the world-process. Nothing in nature acts at a distance. Everything acts through intervening fields.

The law of universal gravitation is not a fact; it is an idea,—a

make-believe. The sun does not attract the earth, the earth does not attract the sun any more than it repulses it. The counteractive forces work in approximate but changeful balance—in harmony we should say. And they do so act through the fields in the periphora, only. The sunshine affects the earth when it gets here —not at a distance—nor does gravitation, or any other verbally represented force ever act at a distance. Gravitation is only an evidence of sympheromenal activity. So is magnetism. Electricity is the reverse. It is a manifestation of diapheromenal preponderance over sympheromenal force, and this manifestation is as much the result of outer conditions as of inner activity.

The application of mathematics to astronomical phaenomena is often absurd. It is always absurd, when it aims to connect causes with phaenomena. It is a misapplication of inductive and deductive thinking.

Gravitation is no cause; it is an outer aspect or conception and misconception of inner, scientifically unknown causes.

That which makes the earth turn on its axis is sympheromenal force, acting preponderatingly as a mobile force in the within of every particle of the earth's body and under outer conditions in the rotating fields of the periphora. No distant force turns the earth of any planets, nor anything else in the world. Centrifugal and centripetal forces do not keep the stars in their working motion. Both these forces are only phaenomenal evidences of the scientifically unknown elementary and universally individual counter-forces—diapheromenal-sympheromenal counter-forces.

The counterforces are always and everywhere subject to the all to-order-setting character-power in the world-wide fields of substantial and conscious energy. The counter-cyclings of the two all penetrating fields about the world-axis make the individual axis of all atomic radio-activity conform to universal order.

Axial activity, working within all ferment and digest-centers and about their housings, produces all motion in nature.

All things alive or dead act through the crossing-point of their two axes, within, and by interaction of their housings, without,—that is, under conditions of the without.

To speak of inner causes without considering outer conditions is analytic work of thought, which never leads to objective Fact-knowing, but only to visionary knowledge,—to forming incoherent conglomerates of fixed ideas, too often called laws of nature.

It is absurd to imagine that the process of nature can be truly represented by mathematics.

It is absurd to imagine that individual life or vitality in general can be truly represented by chemical ideas.

It is absurd to consider the digestion process a chemical pro-

cess. Life, mind, and thought have nothing to do with chemistry.

Nature is not a chemist, nor a mathematician. Certain analytically and often artificially developed faculties of thought make the chemist and the mathematician.

It is absurd to imagine that chemists or mathematicians can ever fairly represent the world-process. They think only about details, without knowledge of active principles and without criterium of certitude.

He who wants to understand the workings of nature, must study the workings of character-energy in ferment- and digest-centers.

It is absurd to assume that the tides are moved by either the distant sun or moon. They move by interaction and counteraction of atomic character-power, changefully active and passive within the moving waters and the periphora. Tropically speaking, we may say the sun moves the tides, because its substance is represented in the periphora, but actually the body of the sun is a very distant factor. Only immediate contact produces immediate effects, and it always does it by inner focalization of counter-cycling forces in their connection with outer conditions and under control of cosmic to-order-setting character-powers in the worldwide fields.

Science knows no causes. It knows the phaenomenal or accidental phase of causation in the outer interaction of things; it knows outer aspects of causes and it knows conceptions and misconceptions of so-called secondary causes.

He who does not know mind-power, **as it is in itself**, and in its inner and outer workings, does not know matter as it should be known, for both mind and matter owe their widely varying characters and forms to the same universally and individually active causes.

The scientific eye, looking through the telescope sees mountains on the moon. The scientific mind connects that sight with its idea of fire and inductively jumps at the further idea of cause. It imagines that these mountains on the moon are of fiery origin, that they are extinct volcanoes. This imagining is a typical specimen of scientific induction or so-called logic. It takes the mind as far from the truth as the thinking of error can take it. The mountains on the moon are products of water-formation—exygransis. They are geysers; and geysers are products of sympheromenal preponderance which makes for solidification and not of diapheromenal preponderance, which, like fire, makes for rarefaction of matter.

The moon has no perceptible atmosphere, because the diapheromenal force, productive of fire and of atmosphere—under condi-

tions—is as yet too subservient to the sympheromenal force. Some millions of years from now the moon will have a perceptible atmosphere, but human life will probably not be here to see it.

Absurd is the scientific idea that planetoids or planets are products of collections from fiery remnants of something. Nature produces nothing by mere accidents. All accidental occurrences have their connection with inner character-powers.

THE CAUSES OF EARTHQUAKES

Earthquakes may be called accidental phaenomena, but the accidental causes stand connected with the regular workings of inner atomic causations. The field of substantial energy penetrates the body of the earth at all times, and it causes certain ferment-changes in the atomic character-forces of the matter which forms the various mineral stratifications. These changes are always changes of predominance and subservience in the balance of sympheromenal-diapheromenal forces; they make simultaneously for rarefaction and solidification by reason of atomic self-division, in varied degreees or in part. This rarefaction lifts or shoves the mountains up high into the sky while the simultaneous solidification may cause the surface of the earth to sink slightly here or there. The much of mountain-making on earth at this stage of its development causes the inclined stratas in the earth's body to slide over each other; and the unevenness in the sliding strata causes the earth to quake.

The whole process of death in nature is one of **pyknoses** and **manosis**; i. e., of knitting the dry-hot diapheromenon into the cold-wet sympheromenal solidity and of rerefying the cold-wet solidity toward dry-hot diffusion.

Radio-active character-energy does the work of death, just as similar but conscious character-power does the work of life. The work is always done in the four ways of polarity, for both the character energy of death and the character-power of life have their origin in the biaxial radio-activity of the stuff of existence.

Solidification in nature's sewerage work is of two kinds, and so is the rarefaction which causes the stratifications of earthly matter to heave and quake. We may therefore speak of two kinds of earthquakes. The difference between these two kinds of earthquakes originates in the different predominance of the polar workings within and about radio-active energy. The rarefying, fire-working tendencies, incarcerated in the knittings of earthy matter, metabole into dominant capacities which make for expansion and slowly but surely for actual combustion. These metabolings produce the phaenomenal heavings of the earth or the so far scientifically unnoticed lifting of mountains into the air. This expanding, heaving and lifting manifests itself usually in "sweating

rock" and occasional earthquakes, but sometimes also in outbreaks of volcanic activity. All these phaenomena are caused by the polar metabolings of diapheromenal energy into dominance over its sympheromenal counterpart which bound it in.

Both the water-working as well as the fire-working metabolings in diapheromenal sympheromenal energies may cause earthquakes, for both may make for rarefaction of character-energy and corresponding phaenomenal expansion of matter. **Exygransis** as well as **analepsis** rarefy energy in either dominant or subservient ways; the former causes the subservient expansions of matter, notable in the oozing of water from the solidly knitted housings which appear as mineral matter, while the latter causes dry-hot diapheromenal energy to break through its housings as heat or fire. Rocks will sweat out water. Stone coal, as well as other minerals, will burn. Directly, all minerals are of watery origin, but indirectly all are also of fiery origin, and all return to this origin in the cyclic workings of character-energy; for this energy works life's offal from water to fire, from fire to water, to maintain the order of life.

The sliding strata are, of course, only incidents to the quaking and shaking of the earth. The **integral cause** of earthquakes, as of any other phaenomenon is always the metaboling in the duality of atomic character-energy which makes for changes in states of material aggregations. The **differential or respondent cause** is always a measured restitution of form.

The material of which the body of the earth is composed undergoes atomic changes, to which Clemens of Alexandria in Stromata (Pott. p. 771) referred by the words **diacheetai** and **metreetai**, i. e., the egestions of self-dividing atomic energy which propagate phaenomenal forms are measured and compensated for by ingestions so as to restore the expense of active energy and maintain its workings within its specially fitted housings. Atomic character-energy may divide the waters of the ocean into sun-ascending vapors and earthy solidification, yet the ocean remains.

Character-energy in life as in death maintains itself by self-dividing and loosening out something from itself and by taking and binding in something else from the constant "**rhoe** and **apo-rhoe**"* or influx and efflux of substantial or conscious energy, which

The transformation of matter into mind or mind into matter, or of life in death or death into life, or of water into fire or of fire into water is necessarily presented in one of three ways, just as the thinking mind happens to be qualified to take hold of one or the other among the three strands in the chain of causation. Schools of thought, which consider natural causation, divide themselves fundamentally into three kinds: the dogmatic, the emperic, and the methodic. The former two hold only to one of the three strands in the chain of causation, while the latter, which attempts to unite all three strands, holds to some Triune world-law in the three processes, as for instance did the earlier

cycles in world-wide ways through all individual character-energies and brings their individual activity into the integral order of universal world-building.

As the waters of the ocean pulsate in tidal movements by reason of measured and measuring changes in cyclic ingestions and egestions of substance by atomic energy in nature's way of working dead matter, so also undergoes the matter in the body of the earth simliar changes for the same reason. When these changes make for rarefaction of matter, predominantly, then they cause the crust of the earth to rise skyward as mountains, unnoticed

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fathers of the Christian church, the early Taoists, the Shintoists, the Brahmins, etc.

The modern mind, when scientifically trained, bases all its knowledge of causation on sensations, on outer observations and experiences, and it calls itself emperic. The mind of Herakleitos viewed causation from the point of self-consciousness and it held dogmatically to the to-order-setting power in the process of nature,—the logos dioikon, from the intellectual point of view.

Herakleitos was a pure, unadulterated dogmatist. Those Herakleiteans, who added the periechon idea to the logos, worked toward methodism. The early fathers of the Christian church, who spoke of trinity in the hermeneutic type of language and who formulated the legends of Evangelists and Apostles were purely methodic; they held to the absoluteness of character-power, physical, mental and intellectual. That, surely, is taking the true hold of causation. Unfortunately, platonic and other vision-born ideas soon corrupted the fundamental bearings of the Christian church, just as stoic ideas had corrupted the pure dogmatism of Herakleitos. It is difficult to hold the mind to the true hypomenon, by terminological language. The wordy symbol is too easily mistaken for the "Living Truth" toward which it makes only a suggestion.

The outwardness of fact is always being placed in evidence by sensations and by every-day language. The inwardness of causation is hidden to the specially sensible view-point.

Without a truly dogmatic, self-conscious insight into the workshop of nature there can be no true empericism. Without a true union of both true dogmatism and true empericism there can be no true methodism, if I may so call the orthodox church endeavor. By the words "true methodism" I do not refer to the denominational methodism, nor to any wordwise, definition-talking, heretic-hunting branch of the modern heterodoxy, but I refer to the old-time methodic school, which held that the inwardness and outwardness must be unified in truth and verity, in thought and act, and must be brought into accord with the all-governing principles of life and death;—and damn the hidebound definitions of any and all alleged scholarships.

Character is the power which does the world-building and which makes life "**go right**," not words in Greek or Sanscrit, nor Logos or Oum or Verbum or Honover—nor any ideas of chemical or electrical elements. In order to throw various intellectual **lights** on the transformation of matter and mind by the character-energy in fermentation and digestion—**lights** which the modern chemist cannot see—I reproduce some more or less meritorious quotations.

Clemens Alexandrinus in Stromata refers to a frequently and variously quoted fragment from the works of Herakleitos, which I reproduce below, as it may throw some light on the changeful interaction of fire, air, water and earth and their conversion into each other which is here under consideration.

Clemens inclines to Christianize the ideas of Herakleitos, and he does

perhaps, or accompanied by more or less shaking and quaking at times. But when these changes in material aggregations make predominantly for greater solidification, then they cause the crust of the earth to sink. This sinking is a minor and rather rare phaenomenon. The earth, at this stage of its development, is mainly still a water-worker, which does more solidifying than rarefying of matter. By the principal solidifying work of the character-centers active in earthy matter, our terrestrial globe grows larger year by year. By the minor rarefying work of character-centers in earthy matter, the crust of the earth is being shoved, as mountains, into

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somewhat pervert the obscurity of their original intent.

Herakleitos always connected physical facts with intellectual workings **without** explaining the connection between **thought** and **thing**, and **without** making any definite distinction between the **objective** and **subjective** meaning of words. These **withouts** make his expressions not only obscure, but they make verbatim translations impossible, or at least untrue to the original meaning and intent. The below recitation is so replete with words having objective meanings of world-wide range that it is impossible by means of our subjectively defined terms of limited meanings to render a verbatim translation true to the original idea.

Herakleitos was the only true dogmatist of our race. He is a class by himself. He reasons into **Depth**. The spirit of his words is obscure to all other thinkers of antiquity, as well as to all modern thinkers, for all ignored Depth; all aim to reason either into **Height** or **Extent**.

No modern scholar can restore the original meaning of the vocabulary of Herakleitos. The Herakleiteans, who took hold of his thought and amplified them, also changed them. They tried to build into **Height**. The stoics, who took hold of the Herakleitean dogmas, elaborated them emperically into **Extent**.

Whenever Clemens comments on Herakleitos or even quotes his words only, he introduces his own conceptions into his quotations and comments. In trying to work from his Height into the Depth which he cannot clearly see, he enters into the uncertain realm of beliefs and he does not reach the certainty of Herakleitean Depth. The very words of Herakleitos assume a different meaning in the quotation of Clemens. Such words as **pyr** (fire), **pyr aeizoon** (ever living glow of vitality), **Logos** (the to-order-setting power in the world-process), **diacheetai** and **metreetai** (self-dividing with changeful but measuring regularity), **rhoe** or **aporhoe** (ingestion and egestion of radio-activity), etc., etc., all assume different meanings by the quoting and commenting mind.

The Greek had no standard dictionaries to focalize the meaning of words either in Depth or Height. They used words loosely in go-as-you-please ways excepting when thinking into Extent and about conditions or categories, when they used them with conventional precision, but in ways only relatively true, just as do our men of learning. The Greek thinkers focalized the meanings of words only with much uncertainty. The modern thinkers can not focalize them at all. Kyriology has been a long time dead, therefore has confusion of ideas reigned in civilization. No man of learning can focalize his ideas in the Gist of Causation. No one even knows enough to realize that **knowing and doing must be focalized in that determining will, which holds to the "Go-right" or Logos dioikon, in order to do the right thing at the right time.** Therefore should no man be proud of his learning. Confusion of ideas reigns, because the same words convey different meanings to different minds.

No scholar makes any attempt at objective unification of ideas.

the sky. The solidifying is the immediate result of regular cyclic predominance in integral causation, which for the present makes the body of the earth grow unobservedly, while the rarefying is the result of subservient tendencies and their irregular rising into dominant capacities, productive of exceptional phaenomena which the mind, working toward outwardness, more readily observes. The occasional and irregular blazings of a volcano impress the senses more forcibly than does the regular growth of the earthy body by conversion of watery matter into mineral deposits.

The solidifying of matter **binds in** tendencies to making of

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I attach a glossary to the end of this volume to give the objective meanings of words, which can serve to focalize ideas in character-power so as to distinguish it from transfusion of form caused by character-power. The following quotation of Clemens refers to the transformation of the stuff of existence by to-order-setting character-power. The meaning of the quotation is simply the assertion that the stuff of existence when in **fiery condition**, passes through conditions of air into those of water and earthy solidity, forth and back, by virtue of to-order-setting power going into all that is contained in earth and encompassed by the heavens.

Clemens quotes and comments as follows, partly in his own words: *„Κόσμον τὸν αὐτὸν ἁπάντων οὔτε τις θεῶν, οὔτε ἀνθρωπων ἐποίησεν· ἀλλ' ἦν καὶ ἔστιν καὶ ἔσται πῦρ ἀείζωον, ἁπτόμενον μέτρα καὶ ἀποσβεννύμενον μέτρα* [1]*" ὅτι δὲ καὶ γενητὸν καὶ φθαρτὸν αὐτὸν εἶναι ἐδογμάτιζεν, μηνύει τὰ ἐπιφερόμενα· „Πυρὸς τροπαὶ πρῶτον θάλασσα· θαλάσσης δὲ τὸ μὲν ἥμισυ γῆ, τὸ δὲ ἥμισυ πρηστήρ" δυνάμει γὰρ λέγει· ὅτι πῦρ ὑπὸ τοῦ διοικοῦντος λόγου καὶ Θεοῦ τὰ σύμπαντα δι' ἀέρος τρέπεται εἰς ὑγρὸν, τὸ ὡς σπέρμα τῆς διακοσμήσεως, ὃ καλεῖ θάλασσαν· ἐκ δέ τούτου αὖθις γίνεται γῆ καὶ οὐρανὸς καὶ τὰ ἐμπεριεχόμενα·*

"I use my own words to convey the original meaning of the quotation to the reader, who has become acquainted with my way of putting the subject. I am not claiming my words to be a scholarly translation, but just means of conveying the essential meaning, as well as I can do it by holding to the prolixity of the original.

"**Cosmos,** or the orderly workings of life and death in nature—the **one** (process) **out of all** individual processes composed (one in its inward radioactive workings according to either Chinese or Ephesian monism), **has not been made by any Gods or men** (both being only living factors in the process); **but it was and is and always will be one** of more or less **vital** and conscious-**radio-activity** (pyr aeizoon) going into the glow of life and out of it in duly measured way; **but yet he** (Herakleitos) **considered the world as one of generation and decay as indicated by the following: The fiery condition of matter** (pyros) **changes into earthy moisture and into ocean** (thalassa), **the ocean divides itself again to go half** or partly **in fiery rarefaction** (prester, the field of substantial energy) **and half** or partly **into earthy solidification. The energies** (dynamei) or tendency to and capacity of this division into fiery diffusion and earthy solidity, **he** (Herakleitos) **thinks is the result** of the fact **that the fiery**

fire. These tendencies, rendered subservient by **binding in**, metabole into dominant capacities to **loosen out** sometimes, here or there, now and then. Heat will heave. Combustible material will go into spontaneous combustion under conditions. There is a kind of **analepsis** to all knittings of matter, a return in the metabolings of character-energy from the watery and solid grave in the earth toward fiery diffusions, and through the way of life into the world-wide field of vitality.

Earthquakes have their origin in **analepsis**, usually productive of water from mineral, but sometimes productive of volcanic action.

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radio-active nature of things (pyr) **is governed by logos or god** (by the world-wide fields of substantial and conscious energy "acting out" the world-law or to-order-setting principles), moving the **glow of living energy through the air into moisture, converting it** (the union of heat and moisture), **into a seed to world-building, which he** (Herakleitos) **calls the ocean** (Thalassa).

If Herakleitos called Thallasa such a seed, he probably considered earthy sewage as a factor in the process of giving form to life. Many records show that noted thinkers of that age considered the ocean as the counterpart of the sky. From the sky, they held, comes the mind-making nourishment, from the ocean, the body-making nourishment, indirectly, of course.

"**This ocean-sewage** (thalassa) **changes into both solid earth and the diffused matter in the sky** (ouranos) **and into that which it encompasses.**

In the foregoing quotation Clemens makes Herakleitos name the ocean as cosmic seed, but Herakleitos himself named the etheral body as the seed of all generation. "Aetherion soma sperma tes ton pantos genesios." (Please pardon the use of Latin letters in Greek words. The printer has no Greek type on his linotype machine.)

Bearing on the same subject, Plutarch has preserved us an interesting passage from the third book of Chrysippos "About Nature," in which the process of nature and the metamorphoses of fire and water are explained from the stoic viewpoint, which of course is largely subjective. Chrysippos was, no doubt, a superficial and word-deluded thinker, but he had sense enough to catch hold of some statements of fact, upon which he built his stoical system of delusive philosophy. The fact that he was a simple minded subjective thinker makes his simple words easily intelligible to the subjectively thinking minds of our age. The passage reads:

The passage from Plutarch's de Stoic. Repugn. reads: *„λέγει γὰρ ἐν τῷ τρίτῳ περὶ φύσεως· „„Ἡ δὲ πυρὸς μεταβολή ἐστι τοιαύτη· δι' ἀέρος εἰς ὕδωρ τρέπεται· κἀκ τούτου, γῆς ὑφισταμένης, ἀὴρ ἀναθυμιᾶται· λεπτυνομένου δὲ τοῦ ἀέρος, ὁ αἰθὴρ περιέχεται κύκλῳ· οἱ δ' ἀστέρες ἐκ θαλάσσης μετὰ τοῦ ἡλίου ἀνάπτονται"*

Verbally translated it means that the metamorphoses of fire is as follows: It changes by passing through air into water, which makes earthy deposits and (again partly) evaporates into air, (and by thus) rarefying itself it forms the surrounding ether. The stars and the sun are out of the ocean ignited.

For a schoolboy's mind, this explanation of the workings of fire and water in the process of nature may suffice. Chrysippos did not know that character-energy, working in accordance with universal law, is the controlling factor in the transformation of the phaenomena of fire and water. In order to lead the mind from the simple subjective surface aspect of fact into the objective character-aspect, the sentence might, for the sake of clearness, be slightly

Both fire and water are made at the same time in the bowels of the earth, by penetration of substantial energy. Fire and water are made of the same stuff of existence; they are products of changes in either diapheromenal or sympheromenal preponderance at opposite poles of atomic polarity and consequent division of substance and matter. The inner atomic activity, changing by contact with the penetrating field of substantial energy, divides the solid matter, in which it is vested, into something more solid and something less solid. The less solid, under changeful polar activity and under some conditions, appears as water; under other conditions as fire.

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amplified and rendered as follows:

The fire-working character-energy in solar substance metamorphoses gradually downward, step by step, in its interaction with the character-energy in the moist air, and so metamorphosing it goes partly into water-working energy. The character-energy of the water divides itself into solid matter and vapour, i. e., it metaboles, in part, returning upward, into ether (substantial energy). The stars and the sun are ignited by the character-energy emanating from the ocean, or from water-working energy egested by earth and planets in general.

Greeks, like Chrysippos the Stoic, conceived the wet-cold ocean to be the counterpart of the dry-hot sky, and as similarly boundless, much as the Brahmins conceived their "shoreless deep." Chrysippos' ideas of material metamorphoses from fire to water, from water to "aether" (the word aether being a contraction of the words aei theios), may be considered true in a way, but if so considered we must remember that all this metamorphosis is caused by an all-pervading to-order-setting power in accordance with the world-law, which Herakleitos, speaking from his intellectual view-point, called **logos, dioikon or theios logos**, and which is in fact the world-wide field of substantial and conscious energy.

Cicero,* talking after the manner of the Stoics, describes the ups and downs (sursum deorsum) in the metamorphoses of the stuff of existence as a continuous double procedure from terra firma into water, from water into air, from air into ether, and back from ether into air, from air into water and from water into terra firma. Cicero does not mention fire at all in his passage; he seems to consider ether and fire identical, and he does not know that all this metamorphoses proceeds cross-wise the Way of life, and under the control of to-order-setting energy in world-wide fields. I mention his slip-shod statement only because it is easily intelligible and may furnish a hint to first endeavors of objevtive thinking, needed to understand the subject of transformation of matter, by character-energy in fermentation and digestion.

Cicero, De natura Deorum: „Et cum quatuor sint genera corporum, vicissitudine eorum mundi continuata natura est. Nam ex terra aqua; ex aqua oritur aër; ex aëre aether: deinde retrorsum vicissim ex aethere aër; ex aëre aqua; ex aqua terra infima. Sic naturis his, ex quibus omnia constant, sursum deorsum, ultro citroque commeantibus, mundi partium conjunctio continetur"

Cicero of old, like our up-to-date scientists, had faith in the truthfulness of his wordy misconception of fact. Like the single-track thinkers of our day, he could not understand the double-active workings of nature, nor the fact

Planetary water and solar fire are conditions very unlike each other in the stuff of existence, yet do both originate in one-sidedness of double-active self-dividing ferment-centers, under control of the same field of world-wide substantial energy. The rain-water falling to the earth in a thunderstorm and the mineral water welling out of the ground are made in much the same way, but by different initiatives in double-active causation. Mineral water is made by integral and regular initiative of the radio-active focus. Rain-water is made by differential and irregular initiative in some periechon power surrounding the radio-active focus.

As with water, so with fire—it is always a product of radio-active changes brought about either from within the focus by penetration of undercurrent or from without the focus by the conditions of its housings.

All the different phaenomenal effects which the superficially thinking mind is apt to consider elements of existence, such as fire, water, earth or air or chemicals and metal, are only different conditions in the stuff of existence, and the periechon-faculties of special sense have a peculiar way of noting and dwelling on conditional differences. But the periechon's special way of knowing stands naturally connected with the focus of intuitive knowing powers, and this connection makes it possible to reduce the widely varying conditional differences to their less variable integral causes. The modern mind, however, does not study the reduction of conditional or apparent differences from the viewpoint of integral causation. It merely classifies conditions and appearances in accordance with outer similitude, and it ignores integral causation.

Changes in atomic polarity always make four different products at one time; fiery or watery or other phaenomenal products are only one kind, the ashes of fire-making, or the solid deposits of water-making within the earth is the other, second kind. The third and fourth kinds are certain changes in the character-powers of the penetrating undercurrents and in those of the penetrated matter. This penetrating energy goes in with one kind of double-active character; it comes out with another kind of double-active character; although it be an apparent case of catalyse, it never is such; it goes in as little more than the changed energy of solar

that the perceptible changes in all forms of existence stand at all times connected with comparatively changeless, imperceptible character-powers in the chain of natural causation. The reflectively thinking mind, which studies phaenomenal changes in connection with categorical ideas, cannot comprehend the natural connection between the incessant transfusion of perceptible forms and the comparative stability of imperceptible character-power. Yet is the fact of this connection in daily evidence. The individuals of all species shuffle off their mental forms continuously, yet their character-power continues to live in the species. The waters of the ocean evaporate daily into saltless fumes, traveling sunward largely, returning only partly as rain, yet the ocean retains its salty character; it does not grow more salty.

light-heat field; it comes out as the electromagnetic periechon of the earthy fermentation process, surrounding our globe.

THE ROCK STRATIFICATION IN THE EARTH

The rock stratifications in the earth are produced by remnants from the changeful types of life, which have existed at certain epochs about the earth. The epochs depend largely on the changes of perihelion and aphelion.

There is no fiery core within the earth. The entire earth is a product of water or sedementary formation, all coming from offal of former life, through and through the earthy body.

Science sees that the rock-stratifications of the earth are of watery origin, but it sees the fact with **the eye that has not within itself the fundamental principal of understanding,** as Herakleitos put it. The scientific eye is made to stand apart from the focus of the immediate knowing powers of mind and life, because the scientific head fondles some categorical idea of elementary fire. In order to favor this idea it ignores the direct connection between the periechon of special senses and the focus of life and knowledge and it connects its periechon perceptions with its categorical fire idea. Although water is predominating in planetary workings, science asserts fire has made the earth. This is about as near as scientific deductions and inductions bring the mind to knowing natural causes. Let us remember the expression of Herakleitos, that **the senses in their natural way of working have within themselves the fundamental principles of knowing and doing,** and of distinguishing self and not-self.

Modern science in its speculations and ideas about natural causation is not a bit nearer the truth than is modern theology. Science is in fashion, and theology is out of fashion. Therefore are these two branches of learning held in different esteem, generally.

The modern theologian cannot read his text-book of faith understandingly; the modern scientist cannot read the phaenomenal changes in nature understandingly. Both types of intellect have neither bearings nor footings in the natural consciousness of causation. Yet this age imagines it is more enlightened than any previous age. It imagines this, because it has learned to use non-vital forces in mechanical ways, as a result of experimenting, mainly,—not of reasoning surefootedly from cause to consequence.

The microscope and the telescope have come to extend the work of the eye and of the senses in general, but not the work of reason. The senses, with all auxiliaries, such as telescope and microscope, furnish only evidences of nature's work, but no knowledge of inner causation. That knowledge can only be obtained by reduction of sensations to their origin in vitality.

Almost all deductions or inductions which the modern mind draws from evidences are delusive and false. Deductive and inductive thinking is not reasoning **"after the manner of nature,"**

from cause to consequence, according to principles of life and death.

Never will the human mind be able to improve itself, if it does not study the connection betweeen various characters and forms of types in language and of those in consciousness. Never will man improve his social conditions and establish enduring forms of civilization, if he does not solve all the problems of life. Chief among these problems is the educational work of language in both the masculine and feminine branches of mind-power. Between these two branches grows the ability to use means to ends in vitally true ways.

The masculine mind is unduly one-sided and superficial in all its judgments and hence incompetent to do truly adjudicative, to-order-setting work in accordance with the principles of life and death.

Man's mind, working by itself, will never come to know the truth, and it will never solve the problem of life.

The masculine mind has worked for 6,000 years in vain, and it will work so to the end of its time, if its one-sidedness is not properly complemented by the feminine mind.

Masculine science and feminine art should go hand in hand as educators. Masculine art can never come to represent the inwardness of fact, while it works prosaically. A prosaic age is a dying age. Sense dies. The reason of living moves on forever. Remember the myths of Isis and Osiris. Remember the feminine mind has a hold on the continuity-work of nature which the masculine intellect does not share equally.

Illustration of an Egyptian triad: Isis, Osiris and Horus, personifying the three strands in the chain of natural causation. The two laterals and the adjudicative, organizing, to-order-setting middle. Osiris, the to-order-setting organizer in the work of civilization, figures here much as does the now unspoken "Logos" or "Word" in other cults, namely as "acting out" the world-law in dead silence. He appears here in his mummified form, that is, existing only in the civilizing instinct, as the Old-man genius, sitting on a column which by mistake has been set wrong end of in the monument from which this protograph is taken.

Isis and her son Horus appear as lateral factors in the work of to-order-setting; crossing and recrossing the way of life. The heads and headgears depict the special consciousness of their determining power.

"We step to the right, we step to the left, but we keep in the middle of the road."

Masculine and feminine side-steps are lateral factors in the order of nature. Side-steps are not necessarily fatal; they become fatal only if they do not find readjustment and readjudication, if they go off in tangents as do the ideas of alleged emperical science and of heterodox theology, which going off into verbal tangents destroys the work of civilization.

THE CAUSES OF TIDES

If Herakleitos, himself, did say the sun is the cause of tides, he made a slim and dim hint at fact. He cut short a long subject, the intelligible explanation of which would certainly have presented difficulties to him.

The distant sun, like the moon, does stand as self-evident proof of an alibi, when scientifically accused of moving the oceans on the earth; but Herakleitos did not speak scientifically in hidebound ideas; he spoke in hints at fact, and he understood the undercurrents in natural causation, therefore may it be well to heed any of his statements.

What has the distant sun to do with tides? It is a direct and indirect factor in the movements of tides—it has something to do with everything that takes place within the solar system. The why and how of this assertion remains to be explained. I will not attempt to do it thoroughly. The subject is not of sufficient importance to call for much attention. I have repeatedly explained the workings of all the factors connected with the subject.

Solar substance reaches the cess-pool of the earth—the ocean —and becomes directly and indirectly one of three dominant factors in the movements of tides.

The light-heat substance of the sun is brought to the earth by the circlings of the field of substantial energy and by those of its various solar-planetary factors; it could not reach here of its own initiative or vis inergiae. The fact of its being brought here is not an immediate factor in the movements of tides; but the

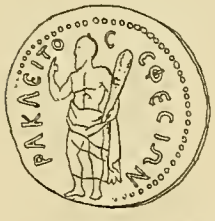


Illustration 150

Herakleitos of Ephesus—the one thinker of our race who understood the workings of nature's double activity and those of the to-order-setting power in it, both from the physical and ethical point of view.

Herakleitos of Ephesus, the one objective thinker, the one intelligent dogmatist of our race, hinted at many facts but explained none of his assertions. In Illustr. 150 he appears on a coin. By this fact he is singularly honored by an age, which, in true enlightenment and natural intelligence, far exceeded our scholarships—an age which understood the pernicious influence of philosophic speculations and aggressive opinions—an age which condemned Socrates to death and drove Plato out of civilization, because both these now highly esteemed philosophers were known to be actually sophists, who scattered delusive and pseudo-moral opinions as truths among the people. Highly

energy which brings it here is such a factor, and so is the circumstance of its character-energy coming into atomic interaction and counteraction with the character-energy of the ocean-water such a factor. The character-forces in both, ocean and solar substance, interact changefully, and they counteract each other alternatingly in accordance with the changeful polarity of their own inner radio-activity and with that of their counter-cycling adaptation-power, or periechon.

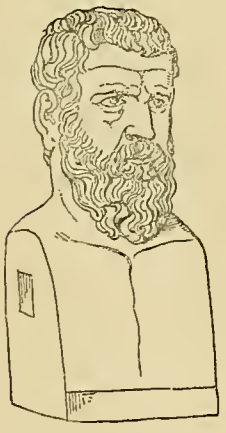
Not the distant sun itself, but solar substance, inwardly and outwardly active, has direct and indirect effects upon the waters in our oceans. These effects are not allied to gravitation, although the periechon of the earth has magnetic or rather sympheromenal character-energy. Gravitation is a phaenomenon of scientifically unknown origin or causation.

In the original or active causes of all phaenomena there are numerous changeful predominant and subservient factors engaged. The predominance and subservience of these factors originates in the changeful polarity of radiating activity in character energy and of the correspondingly changeful polarity in the character-energy of the outer housings, which surround all radio-activity as a responding energy or periechon. The periechon reacts by virtue of changeful polarity from without upon the radio-active within, and so reacting, the periechon is a fundamental, universal and individual feature of all causation. Integral causation has its root in radio-activity, but the differential causation arises in the periechon.

honored indeed is Herakleitos by this imprint on a coin, for such imprints at that time were used only for elucidations of **principle** by educational ideograms. Few men of prominence were ever accorded such honor in that age.

Herakleitos appears with the critical club of the semi-divine Herakles to give battle to visionary thought. The age immediately succeeding that of Herakleitos built the world-famous university at Alexandria, which devoted itself to propagation of relative truths and thereby precipitated the ruin of civilization.

Illustration 151



Herakleitos (?) (after Botarri), **the only thinker of our race who ever knew that language has a life of its own, rooting as does human life beyond individuality in world-wide vitality. He was the only thinker who thoroughly knew that language becomes a directing power in civilized life and that it must be defined as such power in order to put any or all social situations or vicissitudes into a vitally true light.** With Herakleitos, Right-speaking figured as the natural source of Fact-knowing and as a primary requirement to Right-thinking and Right-doing; for language, not thought, evolves the human intellect and gives the human animal free agency powers to do of his own volition what the balance of the created species can do only by virtue of instinct.

Everything in existence has its radio-active inner energy and its outer respondent or adaptation-energy—its periechon. The energetic within has a correspondingly energetic without. Inner changes of polarity have outer corresponding changes in both, the universal and individual process of fermentation or digestion.

Every radio-active atom has its periechon. Every collection of radio-active atoms has its colective periechon. The universe, as a whole, has such a periechon, according to the Fact-Knowers of antiquity. The entire solar system has such a periechon; so has the sun and the earth and every existing particle within and about both.

The polarity of character-energy in the periechon changes correspondingly to the changeful polarity of the radio-active center or aggregations of such centers; the inner poles of the biaxial atom work in rhythmic harmony with the outer poles, but the outer changes take place under the uncertain or indefinite influence of environment.

A definite and indefinite number of radio-active factors and their respondents enter directly and indirectly into all causation. The indefinite factors we may ignore in considering a definite subject like tides. The definite factors to be considered are those which have a universal and individual hold on causation.

The Mexican aborigines have left us three well-known ideograms of the cyclic workings of **Time**, which, of course, include the causes of tidal movements. These aborigines at one time unquestionably understood the workings of natural causation. They understood the principal features of the world-process.

They knew vitality to be an eternally active power in the process of existence and they knew solar planetary systems to be merely things of temporary endurance. They divided the origin and decay of solar systems into four cardinal periods, corresponding to the evolution and involution of powers of life, for the offal of life produces the solar system. They aimed to evolve all their ideas of Fact in accordance with ther understanding of natural causation. They considered all phaenomenal changes from the viewpoint of cycles, and they understood the compensatory workings of atomic character-energy in its counter-cyclings; accordingly they spoke of "**waking and sleeping**" of the various character-energy in semi-cycles. They further distinguished integral causes from differential causes—radiant activity from respondent or periechon-activity, and from accidental interaction. Making this distinction, they could verify their immediate knowledge of causation by their mediate sense-observations, and these observations by knowledge of causation. Whatever their ideas may have been, they could not have been far from the truth.

Illustr. 140 shows the dual character-energy of the sun conceived more or less arbitrarily as the integral cause of cyclic changes, and the solar-planetary periechon as the differential cause. The periechon appears divided into thirteen four-polar cycles or months: **Metzli.** The entire ideogram is surrounded by the "**Serpent of abstract intellectuality**" in order to show that this conception of integral and differential causes has an abstract and arbitrary element in it, the sun itself not being the immediate cause of planetary cyclings

The universal and individual factors of causation appear illustrated in an ideogram from ancient America (Illustr. 141), see explanation of "periphora" in the glossary. The excentric fields in that illustration represent the effects of changeful polarity within the radio-active energy in the four fields of the periphora while the outer circle of ideograms represents the corresponding outer changes in the earthy periechon and its influence on human mentality. The whole ideogram is representative of the causes of yearly changes.

The excentric fields might be taken to work not altogether unlike the wheels in a clock, if a clock could work automatically with self-energetic friction-wheels, as does the solar-system. The excentric fields counter-cycle; their polarity meets and parts, to assimilate in interaction to eliminate in counteraction.

In the above-mentioned illustration the whole solar system is conceived as a cell in the body of the universe and as partaking in the universal process of fermentation in which the four fields of the periphora pulsate with alternating **chresmosyne** and **koros.** All ferment-centers, like all digest-centers do so pulsate individually and collectively, by reason of changeful polarity; and this pulsation in the fields of the periphora is a cause of changeful hunger and satiety in man's daily life and in his spring and fall appetites, as it is a cause in the workings of inanimate nature.

The axes of all ferment-centers adjust themselves indirectly to the changeful supply from the world-wide field of substantial energy and directly to the supply from the local electromagnetic factors in the world-wide fields,—to the solar and earthy periechon.

The universal and individual fields of substantial energy give regularity to all mobility in nature by their control of axial activity. They do the work of carrying about all supplies for the activity of ferment-centers, just as the field of conscious energy carries the supplies of vitality to digest-centers in the universal and individual **sphaeros.** The field of substantial energy in the earthy periechon brings the supply of solar light-heat matter to the character-

but only the symbol of radio-activity. The **four-fold** polarity or metabolings in the radio-active energy of integral causation during the thirteen cycles is represented first by the four twists in the body of the Serpent, and secondly in detail by four ideograms and cardinal names in the thirteen sections, namely those of rabbit-head, **Tochtli**; reed, **acatl**; arrow-point, **tecpatl**; and house, **calli.**

The metaboling points in counter-cycling polarity **(enantriotrope)** characterize all integral causes.

The little dots placed next to the four ideographic signs of these metaboling points denote the changes of the corresponding differential causes active in periechon of the thirteen minor cycles.

The duality of atomic character-energy in radio-activity is depicted as usual by the two kinds of rays, the lineal and the curved, about the ideographic sun-sign.

centers in the water of the ocean as to every other ferment or digest-center within or about the earth or any other factor in the solar system; it brings these supplies in accordance with the cyclings of its own alternating polarity to the **correspondingly** alternating polarity in the character-centers of the ocean water;—correspondingly alternating for the reason that the axial workings of the latter character-centers and their chrosmosyne and koros adjust themselves to the axial workings of the former character-centers, just as the solar periechon adjusts itself to the world-wide field of substantial energy.

The counter-cyclings of the biaxial fields control the orderly workings of nature. The inner work of nature is done by the polar energy of the crossing-point in biaxial radio-activity; the outer work is done by the polar energy of the respondent field—the periechon. To illustrate: The substantial factor in the earthy periechon controls the revolutions of the moon about the earth. The mass of the moon or its specific gravity or its collective powers do not in any way enter into this control. The solar periechon controls the movements of the planets about the sun. Centrifugal force, contripedal force or gravitation have nothing to do with these movements.

The law of universal gravitation is an untenable theory. It is a silly idea—an idea born of unnatural, learnedly acquired ignorance. If that scientifically established law were true to fact, the planets

Illustration 141.
The Time-piece of Creation.
A symbolic presentation of the integrals and differentials in natural Causation by the American aboriginal races.

The alleged primitive races of forgotten ages had a more thorough knowledge of integral and differential causation than has our age. The achievements of our mathematical astronomers are trash when compared with those of prehistoric ages. In the accompanying illustration of the "**Time-piece of Creation,**" the changeful trigrams of Fu-hsi appear as excentric lines. The alternating predominance in the biaxiality of the Tai-Kih is shown as excentricity in the inner circle. The course of intellectual evolution has not worked for the enlightenment of mankind as effectually as involution of natural intelligence has worked for the propagation of delusions, by alphabetical learning dissiminated.

In Illustr. 141 the four counter-cycling fields in the periphora are depicted as the integral causes of all cyclic changes. These fields are shown as elliptic

would move with a changefulness of speed, quite opposite to that indicated by the radius vector. The speed is changeful, because the changeful polarity in the substantial fields controls it; the mass in motion has nothing to do with this control. The interaction and counteraction of every planetary periechon with the solar periechon constitute the controlling energy.

The solar system is not a whirlpool, the sun is not a vortex; both sun and planets are factors in the one **sphaeros** formed by counter-cycling fields of substantial and of conscious energy.

The substantial field does the sewage-work in this **sphaeros**; it supplies the requirements of the ferment-centers in solar rarefaction and planetary solidification—in the fire-working and in the water-working phases of the **phthora**—just as the field of conscious energy supplies the digest-centers in the way of life. It is absurd to apply the theory of universal gravitation to astronomical phaenomena. It is absurd to figure the specific gravity of planets by ideas of mass and motion. Each planet has its own **chresmosyne** and **koros**, and each takes from the **periphora** what its stage of development needs and what the field of substantial energy brings to it.

Chresmosyne and **Koros** are phases of inner causation, which produce the phaenomenal changes in planetary motion.

All atomic radio-activity with its periechon is self-regulative. It needs neither absentee gods, invented by theologians, nor absentee forces, invented by scientists. Nature works automatically for the reason that its energies are atomic, indivisible in their duality and compensatory workings. The energies in the fields control these workings by supply and demand; by regulating **koros** and **chresmosyne.** To illustrate: A soft iron bar suspended by one end charges itself with magnetism from the field because of its **chresmosyne** and **koros**; and it gets its north and south pole from its position in accordance with the counter-cyclings in the double-active fields of substantial energy. Reverse the ends of the suspended bar, and it reverses its polarity.

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in form, because of their biaxiality. Sympheromenal activity appears as predominating in the innermost field; diapheromenal activity in the next field. The counter-cyclings are indicated by the shading of the two outer fields. The human face represents the one-sidedness of reflective thought, of which the moon was the usual symbol throughout antiquity.

The solar-planetary periechon, shown in the outer picture-circle, stands representative of differential causation. It is divided into six times **three** determining points in sewage-working polarity. The world-wide fields are not here specially represented in cyclic changefulness within the solar system, but they seem to appear in a third ideogram, not here produced, in which the sun is shown as one of twenty factors in the great world-wide periechon, which presumably multiplies the eighteen factors in the solar-planetary periechon twenty times, thereby making the yearly cycle of three hundred and sixty days.

The earthy field of substantial energy causes matter of preponderatingly diapheromenal character-power to rise, and matter of preponderatingly sympheromenal character-power to fall.

Gravitation is an idea which has nothing to do with this rising or falling. If it had a heavy body it would have to fall faster than a light body. A large chunk of lead would have to fall faster than a small piece of wood; but it does not. If garvitation were a force and not a visionary idea then the more would have to fall not only with greater energy, but with greater acceleration than the less; but it does not. The field controls the falling.

Gravitation is an idea, weight is a fact, and it is evidence of sympheromenal preponderance in tendencies of character-energy. The fall of weight is a special capacity by sympheromenal knitting imparted to the stuff of existence, but by the field controlled. Nothing can fall into the center of the earth.

If we could bore a hole through the earth and drop the heaviest piece of matter on the face of the earth into it, it could not fall to the alleged center of gravitation; it would fall wherever the circling field of substantial energy takes it. Its capacity to so fall depends on the sympheromenal knittings of its inner character-energy which interacts with the character-energy in the field. These statements of fact may or may not be evident, but true they are, notwithstanding all teachings of science to the contrary.

Gravitation has nothing to do with tides. The tides do not gravitate, they pulsate, they ebb and flow with **chresmosyne** and **koros** as the counter-cycling field of substantial energy brings up

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The deviations of approximately five days between the integral and differential causation of cyclic changes, as given, and the actual observation were taken into account, as the gradual lengthening of years, and as the unavoidable differences between rounded figures and actual rotations. The aborigines called these five days **nemontemi**, i. e., unused (in the cycles considered). The year of 365 days was further supplemented by intercalating thirteen days every fifty-two years, or half century-cycle. This intercalating of thirteen days was done gradually, quite in accordance with the actual workings of cycles, by adding another cycle to the thirteen half-century-cycles; and it was noted by changing the initial name of the new year, using the four cardinal names, **tochtl**, **acatl**, **tecpatl** and **calli**, one after the other as initials, three times in thirteen years, thereby varying the initial day of the year from the 26th of February, in our reckoning, to the 13th, forth and back, during the century. The moon, although called Metzli (month), cuts no figure in the monthly cycles of ancient Mexican reckonings. It figured as an incidental evidence of causation only; the fields were known to do the cyclic work.

The reckonings of cyclic changes were applied to changefulness in human temper and disposition, for humanity lived by drawing on the changeful fields in the periphora for mental nourishment. The integral and differential causes in the "**Rollings of the Wheel of Time**" were made the foundation of educational endeavor, in ancient Mexico, just as in ancient China. This scheme

supplies or removes waste from the character-centers of the ocean-water.

Herakleitos divided the process of nature into two ways of working the stuff of existence over and over, automatically. He distinguished two kinds of anathymiasis; that of life and that of death or sewage.

Herakleitos knew the tides as a phase of the **Kathersin** or disinfection-process of sewage, in the earthy cess-pool or ocean — **"Thalassa."**

The character-centers in the waters of the ocean and in solar substance have their alternating **Chresmosyne** and **Koros**; they draw on and they egest into the fields of the periphora by turns of polar-activity, as do the character-centers in the digestion-process of life. Changeful polarity fills up the character-centers alternatingly in earth or ocean-water and in solar light-heat substance or it empties them out and causes the self-division of individual ferment-centers, thereby propagating more character-energy of similar kind, at the expense of other character-energy which is being undone. Thus the character-centers in the ocean-water and in its exhalations interact with and counteract the character-centers in the substance coming from the sun. They do this alternatingly in ways of opposite polarity, that is the solar light-heat substance and the earthy cold-wet sewage interact with and counter-act each other under certain control of the counter-cyclings of substantial energy in the periechon of the sun and of the earth—we might say, under the bipolar electromagnetic energy, which alternatingly brings the opposite polarity of solar and earthy character-centers together or pushes them apart. These counter-cyclings of bipolar substantial energy control the changefulness in planetary preponderance for solidification of matter and the solar preponderance of rarefaction of substance. And this changefulness moves the water of the earth in tidal phaenomena, not only so many times during the year, but especially in spring and fall, for the earthy periechon interacts and counteracts with the solar periechon, and both are factors of causation in the yearly changes in the appetites of living as well as of dead character-energies.

The tides are a local phaenomena of changeful polar activity, not only in the material fields of the periphora, but of a similar changefulness in the interaction of the earthy and solar field of substantial energy.

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was theoretically correct, even if it was not productive of desired results. All the ancient civilizations had adapted it. Knowledge of physical facts may be thorough, but discipline of the intellectualized character may fail, and the civilizing endeavors with it. Knowing is one thing, doing another.

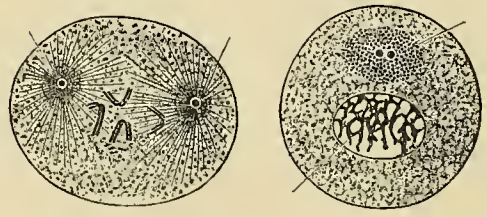
As the character-centers in the waters of the ocean charge and discharge themselves periodically by interaction and counteraction with the character-forces in solar light-heat field of the periphora, directly and indirectly with character-forces in the periechon, so pulsate the tides. And that pulsation is a process quite analogous to the spreading and contraction in the body of the dividing cell under the changeful biaxial interactivity of the nucleolus and the centrosome. (See Illustr. 152.)

The process of sewage-fermentation, like the process of digestion is rhythmic in its inwardness, no matter what prosaic view mechanically minded scientists may take of its outwardness. Not outer affinities, but inner character-energy does the determining work in nature. Affinities are only respondents of character-strainings and evidences of their inner workings,—of chresmosyne and koros. Regularity of changefulness in the polar workings of character-energy produces the regular changes in the workings of nature; and the polarity of individual energy is controlled by the axial workings in fields of collective energy.

Distant things, like sun and moon, move no tides; the counter-rotation of fields move them by direct interaction and counteraction. Sunshine attracts the ocean-water only through its influence in the periphora and only with changeful force depending on the changeful polarity in the fields engaged.

The moon by its periechon exerts a repulsive influence upon the earthy periechon in which it moves. If the moon has a material tendency to fall to the earth, it also has a substantial capacity to keep from falling. It exerts this capacity as a diapheromenal reaction to its sympheromenal absorbing power, not so much in the material fields of the periphora as in the substantial periechon. The moon distributes very little matter; its absorbing powers pre-

Illustr. 152 shows how our biologists illustrate the process of self-division in cell-life. This illustration may serve us to explain the interaction and counteraction between the character centers in solar light-heat substance and in those in the waters of the ocean; it may so serve us because universal fermentation works on the same principle as individual digestion, the only difference being in the diataxes, which is not here considered.



The illustration shows two stages in the development of cell-life; the earlier stage is shown as a circle, the latter stage as an ellipsis. In the smaller circular body apepar two elliptic bodies of unequal size; the upper contains the products of digestion about the centrosome-axis; the larger shows those of digestion about the axis of the nucleolus. These products interact and

dominate in its environment. What little matter the moon rejects reaches the earth only by the carrying power of the substantial periechon. If there were no carrying power in the periechon of the earth or in the world-wide field of substantial undercurrents then the people on this earth could not see the moon or know of its existence, nor could they know the sun; its light-heat substance could not reach the earth, and it could produce tidal movements.

The tides are a product of both absolute and relative interaction and counteraction in the workings of deadened sewage. The workings are controlled by three-legged diataxis or principles of procedure, for only the three non-vital fields in the periphora come into dominant play as causes of tides. The world-wide field of vitality or the vital factors in periechon do not take any active part in tidal movements.

The character-centers in ocean-water, like all ferment- and digest-centers, draw only on such nourishment in the periphora as they can assimilate or digest. The ocean-water is sewage and too far removed from vitality to assimilate much from either the universal or local field of vitality. It is mainly the disinfecting energy in substantial undercurrents which ocean-water is susceptible of assimilating.

Solar light-heat substance is refermented in its interaction and counteraction with earthy wet-cold matter in the atmosphere. This refermentation embodies some solar substance in the earthy atmosphere, and it egests some of its substantial energy, which becomes part of the periechon and with it penetrates the body of the earth. By this penetration, the refermented solar energy is in part further refermented and it emerges through the ocean-water as something like electro-magnetism, which appears on the surface of the ocean as phosphorescent light, and which is a disinfecting factor of

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counteract each other through the intervening fields of substance in the process of self-division, just as the character-centers of solar substance and ocean-water interact and counteract each other. The result of this interaction and counteraction in cell-life is self-division and propagation of specific character-energy; and this result is analagous to that of disinfecting ocean-water, which causes the tidal movements, under control of the solar planetary periechon. The ocean-water does not part entirely, en masse, as does the individual cell eventually; but its character-centers do so part and reunite; they work as do the digest-centers in the cell-community, and they work under the same influence of the substantial field in the periphora and by reason of the counter-cyclings of these fields.

The stuff of existence, in life and its sewage, is being worked over and over by atomic radio-activity in accordance with the same principles, of which the foregoing illustration presents evidences—but evidences only, not conclusions. The thinking mind in considering evidences to discern their causes may proceed either after the manner of its nature or in visionary, tangential ways.

ocean-sewage. This refermented part of solar substance in part cycles by further fermentation into the world-wide fields through the periechon and again makes solar substance an indirect factor in tidal movements. Another part of solar substance cycles into the world-wide fields, similarly, through the egestions of digest-centers, as reanimated energy.

The above statements of fact are by no means intended to elucidate fully the causes of tides. There is much more to be said on the subject of natural causation in general and on the causes of tidal movements in particular.

ABSOLUTE, RELATIVE AND ACCIDENTAL FEATURES IN CAUSATION OF TIDES

All natural causes have an **absolute** footing in the determining character-energy vested in the crossing-point of biaxial radio-activity. They have also something of a **relative** hold on the stuff of existence by reason of outward working polarity through the periechon, and they have a still further **relativity** because of outer limitations (anammata) and accidental interaction, counteraction and reactions.

The absolute and the relative features and phases make all consideration of causation a complicated subject.

The absolute determination is not the only power in world-building; relative factors work for and against it.

Limitation of constructive energy plays a part in all cosmic work. The creative causes and the created effects are correspondingly limited in energy.

The creative causes can only work through created effects. Universality acts only through individuality, and never in unlimited ways, but only within certain bounds—within anammata.

Both solar and planetary influences have their anammata and both suffer rebound or reaction from these anammata.

Every **sphaeros** or unit of cosmic activity has its certain confinement. Solar as well as earthy influence has its anamma, through which it interacts and counteracts with the environment. The inner interaction and counteraction of factors in the **sphaeros** has not only its own bounds and rebounds, but it has accidental reactions and counteractios from the environmet to deal with. No **sphaeros** is an independently active factor in causation. The limitation of all co-operative energies working in **absolute** radio-active ways has to centent with accidental **relativity.**

Cosmic regularity is disturbed by chaotic accidents.

The excentric movements of planets, due to the absolute workings of biaxiality suffer disturbances from accidental causes within their own boundaries as well as from without, and these disturbances have their effects on tides. The confinement of polar

and planetary factors must be considered in essaying the tidal changes. The bipolarity or rather biaxiality of all radio-active units and combinations of units, working within confiement, causes the double excentric movements in the fields of the periphora and the elliptic coursings of the planets. This biaxiality is a feature in individual as well as in collective radio-activity, and it has its responder not only in the periechon, but also in the solar anamma. The responder is a cause of the double movements of daily tides as well as of the phaenomena of spring and neap-tides.

All the regular work in the periphora is done by diataxis in atomic character-centers; it is done in accordance with duly "measuring and measured determinations in the **Rollings of the Wheel of Time.**" The rolling depends directly on the four branchings of double active polarity in all ferment- and digest-centers and aggregations of these centers, but indirectly it also depends on the confining-power of anamma. The character-changes in this polar activity (enantiotrope) produce the rhythmic throbbings or pulsations in the movement of the deadened offal of life—in the **phthora** or "Great River" of all-engulfing sewage, the "Fiery River" of the all-renovating sun. These facts were once widely known. Even the aborigines of ancient America knew them.

Planetary bodies have little if any regulating influence on disturbing force in the counter-cycling fields of the periphora. They are aggregations of dead matter with limited character-activity and they move naturally in accordance with the more active character-energy in the fields of the periphora. These aggregations of dead sewage-matter float in prester. The active fields of greatly rarefied substance in the periphora are given solidity by the all-enclosing **anamma** of the solar system.

Speed and mass of substance and matter in confinement make the entire solar system one solid body,—prester. The word prester does not mean fire as particularly as it means solidity. Were this solidity an actual unconfined fire then we could not see through it, and then the world would burn up. The solar fire within confinement reacts in the making of moisture and water within the confines of our solar system.

Any one who is interested in determining the detailed changes in the polarity of the character-powers which cause the tidal movement can study them by Fu-hsi's integrals and differentials. The Ch'ien trigram in Fu hsi's Pa Kua presents the nearest approach of the predominant polarity in the local periechon to that in the world-wide field and hence predominant causes in the neap-tides. King Wan has shifted this polarity as shown in Illustr. 118, probably to suit his ideas of changeful intersection in the biaxiality of life. This heavenly King labored to establish the heavenly King-

dom on earth among civilized mankind, and hence he concerned himself more particularly about organizing principles of procedure in life, mind and thought than about the sidereal sewage-work. Nature's sewage work does not seem to have received much attention on his part.

THE MOON

The moon is one of the best known of all the scientifically belied products of nature. It bears silent, but irrefutable evidence of the unnatural ignorance which characterizes the astronomical knowledge of our age. The learning of former ages may not have done justice to the moon when making it symbolic of the reflective work of thought and its onesidedness and shortcomings; but never did learning place such altogether false testimony before the mental gods in our temple of living truth, as do our up-to-date astronomers when they speak with academic authority of the one great sattelite of our earth.

The moon stands scientifically charged with being of fiery origin; when, as a matter of fact, it originated in watery formation.

The telescopic examination of the moon has scientifically established the absurdity that its face is blistered with volcanos, but in fact, there was never anything like fire within or about it. The moon is a chilly thing, and it is hungry for the heat of the sun. The alleged volcanos on its face are water-working geysers.

Our modern astronomers are unanimous in pronouncing the moon a dead world; yet has the moon grown to its present size by accumulating the offal of life, existing about it, and it still grows in the same old way as a repository of sewage.

It is scientifically asserted that the moon has no environing atmosphere. If that assertion were true, then it would be the one thing in existence which did not partake in the universal process of assimilating and eliminating. The atmosphere of the moon does not break the rays of light because it is not yet of sufficient density. The moon moves still in the peirechon of the earth.

The moon is scientifically charged with being the cause of the

ILLUSTRATION 148

The Moon is of all visible world-bodies the nearest to the earth, the most observed and best known to our astronomers. Yet, is the present astronomical knowledge concerning the moon far from truthful.

Modern science can and does take sensible observations, but it does not often draw reasonable conclusions from sensible observations. The scientist of average mentality does not understand the differences between facts, phaenomena, evidences and causation, and he does not realize that phaenomena are not acts of nature as they are in themselves,

tidal movements in the oceans of the earth, when in the very nature of things, it cannot act at a distance and therefore stands in evidence of an alibi and is, of course, innocent of the scientifically founded charge—the charge that it disturbs the waters of the earth.

The moon is also scientifically accused with obeying the visionary law of gravitation, yet it moves unconcerned about this alleged law through its duodenary circles about the earth, without accelerating or retarding its pace, as it approaches the sun or retreats from it. Nor does the moon pay any attention to the scientific ideas of centrifugal or centripetal or other mathematical notions of mass and speed. It remains a loyal satrap to the earth and to the harmonious workings of everything else in the mundane sphere.

The character-energy, which keeps the time-piece of creation going has nothing to do with the scientific conception of gravitation or of centrifugal and centripetal force. Outer interaction and relative expenditure of energy produces the phaenomena of these forces.

Scientific talk has nothing to do with the to-order-setting Logos or any similar character-energy in either thought or act.

Mathematically minded astronomers may belie the moon as they please, it retains its integrity. It moves quite in accordance with the one law of nature which is scientifically unknown; and, being unknown, leaves the self-sufficient thinking mind free to guess at the evident facts, of which it is unnaturally ignorant, and to invent subjective star-ideas and visionary laws whereby to enlighten the benighted intellect.

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but they are only special aspects of fact and possible evidences of natural causation. Not realizing this fact, the learned scientist cannot realize the further fact that phaenomenal evidences do not convey any knowledge of causation to the superficially thinking mind—the syllogizing and illogical intellect.

Learned thinkers are much given to drawing false inferences from evidences.

Illustr. 149 presents a pictogram of the Haida Indians, our contemporary aborigines in the far north. The moon is here used, as usual, to depict the perversion of intellectual powers by the reflectively thinking mind. The Haidas, like all natural thinkers, have little faith in the virtues of alphabetical enlightenment. The above pictogram is an illustration to a legend relating how man came into the moon, that is how the human mind came to be a reflectively working machine only,—how it lost its radiant self-consciousness and powers to discern the workings of natural causation. The Haida's idea regarding the evolution of reflective intellectuality may be primitive, but it does not fail to depict the salient features of the facts in the case. The design depicts the peculiar nature of the reflectively working intellect, — the enfeebled arms of "doing" and the weakened legs of "proceeding" righteously.

The microscope in biology, the telescope in astronomy, do not supply the academiaclly trained mind with reasoning powers to know the active causes of nature's mobility and motivity, nor with ability to tell the truth about facts. The scientifically enlightened mind is unnaturally blinded to the workings of all natural causes, yet it will undertake to explain, authoritatively, the universal workings of causation and thereby hide its own unnatural ignorance in the guise of positively and relatively true terms.

The learnings of antiquity disparaged the moon by using it to symbolically represent the workings of reflective thought. This use was an abuse, for the moon is a true sewage-redeemer in the way of life, while reflective thought is a maker of intellectual sewage in the ways of death. The moon does not work on three-legged principles, exclusively, but reflective thought does work in accordance with its three-legged principles only.

Will the physical scientist ever come to realize that he has no right to speak of natural causes, while he is self-confessedly ignorant of all that which is essential to Fact-knowing,—while he only knows phaenomena, conditions and the outer appearance of things,—and while he works away from the Reason of their being into the delusive glitter of tangential generalities and particularities?

The moon, like the earth, is a floating graveyard in this world of life and death. The life upon and about it makes it such a graveyard. It is not an accident. It is not a fiery foundling, but a legitimately born factor in the body of the universe. It owes its origin, like all things of life, to the counter-cycling interactions of substance and matter in the ways of life and death.

The crippled human figure holds cut flowers in his hands, as symbols of the remaining products of the growth of natural consciousness, and also a basket to receive the profits of intelectual aggressions. The figure personifies a profit-gatherer in those greedy civilizations which labor only to make a few men rich. Reflective thinking makes men rich, but perverts and cripples their nature, is the moral in this design. This man in the moon is a sort of **Cyclope,** who works by artificial sight in the night of natural intelligence. The reflectively thinking mind, according to this pictogram, has its discerning eye in the brain of the rapacious eagle; and it also has its de-natured knowing powers fore and aft in the body as shown by the pseudo-eyes in it.

The reversal of the natural "lights of life," by thinking reflectively only and obscuring the natural lights of intuition, is indicated by the blackening of the crescent and by showing the darkened part of the moon as light.

Reflective thought, alphabetically enlightened and terminologically fixed in its conclusions, makes that which is Light and Right in the nature of things appear as dark and wrong in naturally humane judgment and endeavor. Even our remaining aborigines know that the advance of our civilization rushes deathward by reason of thinking reflective errors. The aborigines hate pretentious thought; they depict it as a devil. The Haida Indians have produced a great number of instructive ideograms which show evidences of profound intelligence.

LIGHT

All that is known to modern learning about the workings of **light** is extremely faulty and delusive. The modern theories of light are relatively true, but untenable. Relatively true is any statement which has the appearance of being true, but lacks the character of truth. Any opinion or theory which is utterly untrue to fact may be called relatively true if it be considered only in its relation to any and all other kinds of absurd opinions by which it stands endorsed or confuted. The now highly esteemed relativity of truth includes all work done by the intellectual reversal of natural intelligence, which is the inevitable result of onesided alphabetical enlightenment, and the digressions of which range anywhere from unnatural ignorance to opinionated insanity. Relative truths refer in no way to the causes of orderly workings in nature. The conceptions of relative truths arise in ignorance of natural causation. Minds, thus ignorant, will always attempt to elucidate aspects of fact by misrepresenting their causes. The modern ideas of light misrepresent its causes, character and workings. All distinctions made by learning of the various phaenomena in the workings of light are intellectual artifices. These distinctions may serve technical purposes at times, but as a whole they are delusive.

Light is a product of the universal fermentation-process in the stuff of existence; just as the eye, which sees the light, is a product of the process of digestion. Atomic radio-activity working under conditions of periechon, anamma and universal environment produces both, light and eye, as well as all phaenomena of light, its natural diffusions, its concentrations, its refractions, its polarizations. Light is produced by the passing of the stuff of existence through radio-active centers, by assimilation of something from the passing stuff and by elimination of something else. Both substance and matter may be used up in the production of light. The sun produces light by burning up the matter in its body. The candle produces light by burning up stearine. Lamps produce light by burning up oil. The electric spark produces light by dissociation of its sympheromenal housing. Thought produces light by digesting the substance from the field of conscious energy in the mental character-centers of the bodily economy.

What the human mind may know about light, it knows inwardly through the workings of its self-consciousness and outwardly mainly through the eye; and, of course, also through the unification of these two sources of knowledge. What the eye notes about the workings of light is imparted to it through the

interaction of its character-centers with the character-centers in the fermentation of light, and all these notations are fragmentary, the eye being a special organ of notation. It notes evidences only, not the act in itself. If the character-centers of the seeing eye could not interact with the character-centers of the light or other objects seen, then the eye could not serve its purpose; if light had not been an incidental but constant factor in the evolution of the eye, then the eye would not have evolved its natural ability to deal with light.*

What the eye notes in the refraction of light is the evidence of the fact that the fermenting light-matter is composed of, at least, two kinds of different stuff or a duality of character-power which divides itself when working under changed conditions. What the eye notes in polarization is evidence of the fact that light works in spherical ways about two axes through one radio-active center.

There is no monoaxial light. Matter could not come together or go apart in monoaxial ways. It could not be polarized or refracted.

The models made to explain the workings of monoaxial light, illustrations 29-30, may give some idea of the axial and spherical workings of light, but they are products of one-sided aspects and fragmentary conceptions of fact.

The polarization of light shows only motion within limits and biaxial tendencies to work toward this or that side of the main radio-active axis; the side depending on the kind of fermenting substance. The motion, noticed, may lead thought to form all sorts of conclusions with regard to its causes, but all that thought can learn through sight about light and its motion cannot impart any knowledge of the character-energy which produces the light and the power of the eye to note the light, nor can it impart the knowledge that light is produced by simuntaneous assimilation and elimination of something, if thought has not its conscious connection with self-consciousness; a connection which scientific thought can never boast of having.

Illustr. 142 to 144 show three different views of visible motion in polarized light. They show the tendencies or capacities of light

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A cumbersome sentence, teaming with words susceptible only to objective definitions and recited by Plutarch in Isis and Osiris, points to the Gist of Fact. The sentence reads: *ἡ δὲ ζῶσα καὶ βλέπουσα καὶ κινήσεως ἀρχὴν ἐξ αυτῆς ἔχουσα καὶ γνῶσιν οἰκείων καὶ ἀλλοτρίων φύσις ἄλλοθεν ἔσπάκεν ἀποῤῥοὴν καὶ μοῖραν ἐκ τοῦ φρονοῦντος ὅτῳ κυβερνᾶται τότε σύμπαν, καθ' Ἡράκλειτον*

This means approximately: The living and seeing nature of man, which has within itself the principles of motion and the immediate cognition of self and not-self, has ingested part of the world-wide consciousness from the not-

Illustration No. 142

Illustration No. 143

Illustration No. 144

to work in Tai-kih curves, in cross-forms, squares, etc. They show this tendency in connection with the limitation which the periechon puts upon radio-active workings of various kinds of matter under various conditions. The shadings are not material, they indicate only the neutral lines in the four-fold division of biaxial polarity.

The scientific talk of the immense speed of light is absurd. Light originating in the fermentation of matter has no such extraordinary motion. Its mobility is analogous to that of sound and not always largely in excess of it. Although it is true that light originating in changes of substance, as does lightning, we see much sooner than we hear the thunder. The reason of this fact is obvious, but not known to science. The mobility of both light and sound is multiplied by the axial workings of the field of substantial energy which does the work of carrying the fermenting stuff about in the periphora. This multiplication in the case of light is far greater than in the case of sound, but it varies in both cases in accordance with the fermenting matter or substance which is being carried about or distributed. Different character-centers produce different stuff, more or less susceptible of being carried about, fast or slow, through the sphaeros.

Light originating in fermentation of **substance** moves with great rapidity by its own energy; while light originating in fermentaton of **matter** travels like fire with slow speed of its own

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self without, the part which is an egestion of that which governs the orderly workings of nature, according to Herakleitos.

To further explain the meaning of this quotation: That which governs the workings of nature is the radio-active conscious energy in the world-wide field of vitality. The Herakleiteans called this governing power **theios logos,** and perhaps they included the idea of periechon in their conception of governing power; or they referred to the to-order-setting as logos dioikon, for short, or they described it more definitely as the all-penetrating and surrounding world power, making the world-law. According to their knowledge of fact, this "divine" world-law nourishes and sustains the order of human life and thought-made laws as far as they are just. It seems to have been a generally recognized truth that man lives not by eating and drinking alone, but also by

energy and owes the rapidity of its motion altogether to the axial movements in the field of substantial energy. Solar fire is **matter** in fermentation; it travels slowly by its own energy, and rapidly only by the field of substantial energy which carries it. The 180,000 miles per second with which solar light is reputed to travel are derived from the speed in the field of substantial energy. The speed idea of solar light, as conceived by the scientific mind, introduces an ignis fatuus into the intellectualized mind. Our mathematical astronomers deal in relatively true visions which misrepresent natural causation. The misrepresentations are evidences off **ignorance crasse,** studiously acquired and systematically propagated by persistent miseducation—by instruction which so stupifies the mind that it loses its natural powers to reason from natural causes to natural consequences.

Molecular motion, so-called, is only evidence of polar metabolings in the duality of radio-active energy. That metaboling characterizes all fermentation and digestion. The radio-active within always works in connection with the without.

Color has its original footing, not in speed of waves, but in the stuff of existence and in the ways in which this stuff is fermented or digested. The speed effects noted in connection with color are only evidences of the work done.

When the student has learned all science has to say about light or any other phaenomenon, he has learned only to draw false conclusions from evidences.

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drawing on, inhaling, vitality from the world-wide field of conscious energy. See quotation from Marcus Antoninus elsewhere in this volume.

The workings of conscious energy about the world-axis governs the workings of all individual axes in digest-centers. The nucleolus, through its axis, draws upon world-wide vitality for part of its being, and it controls the workings of the centrosome axis in digestion. The vitality which we inhale and the vitality which we draw from reanimated food find axial adjustment within every digest-center of our body, and this adjustment builds up both mental and bodily powers and faculties; it equalizes and harmonizes the bodily and mental workings within our organic economy.

If the nucleolus did not so draw conscious energy from vitality without, **then digestion could not reanimate the dead food eaten;** nor could we be self-conscious beings, that is, the self could not distinguish itself from not-self, if the consciousness coming through the axis of the nucleolus did not stand distinct in the mind from the consciousness coming through the axis of the centrosome. But as a matter of fact the radio-active self-consciousness in the mind works in distinction to its perichon consciousness. The special faculties of inner and outer sense in the perichon consciousness work analytically and self-consciousness works comprehensively to connect all analytic work of the mind with the Reason or to-order-setting power in natural causation. Were it otherwise—were it not for the conscious energy which we inhale—men could not have more reasoning powers than the food which they eat can impart to their bodily economy.

SUBJECTS OF SYMBOLIC AND SCIENTIFIC ILLUSTRATIONS

1. The Chinese Pa-Kua, or 8 trigram-formula of the integral and differential factors in natural causation XLIII

2. The Shekinah of the Kabbalists, illustrative of the downward growth of mentality in organic life XXXV

3. The first Brahmanic World-egg, symbolizing atomic Radio-activity as the one element in world-building energy.

4. The Brahmin Trimurti, shown as personifications of the three-fold branchings and alternations of integral and differential to-order-setting powers in mental and intellectual development.

5. Brahma, as the World-digester of the evidences of universal and individual factors in causation. His digestive work is sustained by ingestions from and egestions into the field of conscious energy in accordance with the polar changes in the **Cyclic Rollings of the Wheel of Time.**

6. Brahma and Sakti establishing the reciprocal principles in intellectual and social evolution by evolving the Sanscrit or rhythmic use of language, which brings the human knowing powers into harmony with the world-building doing-powers.

   Brahma, after self-division as Brahm-Sakti, surmounts the physical World-egg and its abstract, ideal representation and misrepresentation by alphabetical enlightenment: Note the dead serpent hung about the World-egg 49

7. The Arrhenothelous Genius of Brahma metamorphosed into that of Prajapati, suggesting the fact that intellectualized self-consciousness remains arrhenothelous, and capable of comprehending the double-activity in creative evolution, if evolved by the Sanscrit type of language 49

8. The masculine and feminine powers of the intellectualized mind represented by a radio-active and reflective head, both of which draw on the fields in the periphora, for the hot-and-dry-solar and the cold-and-wet-earthy substance in the periphora, as the needed factors to sustain vital energy 53

9. The Chinese Tai-Kih, from a Roman Ensign, symbolizing the reciprocally working biaxiality of the to-order-setting powers in all ferment and digest-centers. The Romans pretended to organize their legions in all its details according to the reciprocal principles which sustain organic life. This pretense was common to other nations of antiquity who carried on alleged "holy wars," therefore the Greek word "diacosmesis" was chosen to represent the to-order-setting work in nature as in the army 56

10. The counter-cycling cross of ancient America, symbolizing the radio-active character-power in digest-centers, with particular reference to its double-active counter-cyclings 64

11–12. Sectional views of hailstones, showing the fact that the substantial energy of ferment-centers in nature's non-vital activity works radio-actively within certain limits, determined by the periechon, just as conscious energy works in life 68

13. The spiritual Dionysis and the physical Silen, illustrating the similarity and the difference between the sensible and the reasonable workings of character in the human mind 70

14. Silen, as the alphabetical instructor of outer sense, neglects the development of the reasoning powers and thereby converts human nature into that of intellectual satyrs who corrupt public intelligence by compulsory unnatural education and propagation of irrational opinions 74

15. Silen, as the personification of the sensible development of mind, supporting reasonableness in its early development, as personified in Dionysos 76

16. The re-incarnation of human reasonableness, which had been done to death by over-development of sensible faculties and intellectual outwardness 76

17. The delusions of intellectual reform-movements 77

18. The freedom to think in undisciplined ways results in ultimate failure of all social reform-movements 77

19–20–21. The character-work of the free-agency powers of mind in thought and language—three pictograms from Ancient America 78

22. The ingot-cross, depicting the intuitive powers of the human mind as originating in radio-active vitality of mental digest-centers, by a potentially conscious periechon enclosed 81

23–24. Two Etruscan Jacob's ladders, depicting opposite stages in the evolution of intellectualized character 83

25. The microscopic view of the multiple character-powers in the eye of an insect, working as a unit in a "sphaeros" of a radio-active center, which by re-digestion focalizes the biaxiality of all minor centers 86

26. A Brahmanic symbol of a turtle-tower, the active factors in the evolution of the free-agency intellect. Although the human mind lives naturally within the world-wide field of potential vitality and although it interacts reciprocally with this field, it thinks relatively true, mechanical ideas 86

27. An armilary or model to illustrate the spherical workings of life and death, in their interaction and counteraction 90

28. The globe or "sphaeros" of Helios, who personifies radio-active Self-consciousness as harmoniously interacting with the world-NOT-self, is here used to depict the fulness of intuitive knowledge of fact in distinction to the "intellectual peacock," which depicts the showy pretentious flatness of the poeticaly developed intellect, given to religious myths 91

29–30. Models illustrating the alleged mono-axial, but actually biaxial and spherical workings of light 94

31. An Etruscan symbol of the tri-unity of human knowing-powers; Spoken Thought and Speaking Thought working in harmony sustain the mind's naturally self-conscious insight into the Gist of Fact, active in the **crossing-point** of atomic character-power—an unwinged Holy Ghost, suggesting that the vitality to which Spoken Thought gives expression is only a potential factor in Truth-telling, and that Speaking Thought is the dominant and active factor in evolving intellectuality in mankind 95

32. An Egyptian picture illustrating the process of forming self-conscious judgments of evidences in accordance with principles of life and death 97

33. A Japanese Tai-Ko, illustrating the union of the three equally important strands in all causation. We might call the Tai-Ko a cross-section of the eternal chain of causation 105

34–35–36. Visible and invisible light 110

37. A diagram to explain the changeful angles of intersection in the bi-axiality of atomic activity 121

38–39. Self-division of body- and mind-making powers in cell life 128

40. A Peruvian Sun-picture, symbolizing the dual powers of atomic radio-activity 133

41. Alternating currents of electricity in the electro-magnetic field 151

42. Magnetic activity in the field of substantial energy 152

43. Rock-formation-families of radio-active ferment-centers characterize all mineral formation and cause them to undergo periodic changes in the structure 153

44. The so-called nebula in virgo—a bistellar planetary system in the retrogressive course of envelopment 155

45. A Chinese ideogram of the intellectual development of mental tools and of the power to use these tools, **after the manner of nature** 161

46. A microscopic view of a piece of chalk, illustrating the origin of all mineral matter from remnants of life 167

47–48–49. Three views of the planet Jupiter, showing an advanced diapheromenal stage of development, in the planetary environment 169

51. The head of a Sibyl, presumably 177

52. The universal kitchen of Assyria, symbolizing the reciprocal and relative workings of the digest-center by a cross in circle of rampart, denoting anammata 185

53. A Celtic Triskele, symbolizing three-legged analogy, the relativity of truth and the three-legged diataxis 187

54. The gammadion or walking cross, symbolizing the changeful bearings and footings in the logic of life, the reciprocal workings in the Wheel of Time and four-footed diataxis 189

55. King Amenopthis II, in the dogma of at-one-making or atonement 193

56. The Egyptian Uas, a symbol of logical thought, as a guide to apostolically reasonable leadership 196

57. The sistrum or ankh, the symbolic key which admits the speaking intellect to the workshop of nature and to knowledge of the inwardness of natural causation, i. e., evangelic knowledge 197

58. Picture of fatal relationship from Assyria, illustrating the fatal influence of single-active thought when dealing with powers of life in relatively true ways 198

59. A Holy Ghost design from ancient America 200

60. A Holy Ghost ideogram from ancient Egypt 201

61. The Kilin of relative principles of procedure; a glyph from ancient China 202

62. The Kilin of reciprocal principles of procedure; the glyphic prototype of the Christian "Lamb of God" 202

63–64–65. The civilizing purpose represented in its three natural branchings by three bulls: Aphis, Pakis and Mnevis 203

66. An Assyrian ideogram of two unicorns, representative of the unifying power in the double-active procedures on inner and outer sense along life's purpose. Inner and outer Sense in individuals and factions of society moving together produce the unanimity of reasonable procedure 205

67. The Chinese Dragon of Discernment, representing the powers of discernment as encircling radio-active character-power and as paying special, digestive attention to it—the discernment in the perichon-powers 206

68. The Crest of ancient Japan, as a symbol of the organizing power which sustains national life by both reciprocal and relative principles of procedure 207

70. Egg of Toxopneuste; illustrating cell-life as a family of digest-centers 211

69. The two principal factors in cell-life 213

75. Combustible egestions of plant-life; dictamnus fraxinella, ilustrative of the usually unnoticeable diapheromenal tendencies in egestions of life. All **capacities** of moisture contain **tendencies** to heat; no water without subservient fire-tendencies; no fire without subservient water-tendencies 224

71. The relationship of nucleus, nucleolus and centrosome 226

72–73. Phases of nucleus, cell-string and centrosome 227

74–75. Centrosome and cell-string in self-division and reunion 227

76. Egestive activity of centrosome 228

77. Changeful polarity in digest-centers 231

81. Digestive self-division in elementary life—karyokenesis 234

82. Colonies of Amoeba families 235

83. Propagation by self-division 235

84. Self-division of seed-energy 236

85. Changes of seed-energy during self-division 236

86. The workings of biaxiality during self-division 237

84. Isogamic propagation 239

91. Eight stages of interactivity and counter-activity between nucleolus and centrosome in the development of seed-energy 241

78. Diagram showing a scientific conception of polarity 242

79–80. Speculativ ideas of the workings of polarity 243

87. Diagram showing a scientific guess at the causes of order in aggregations of matter 244

88. Mental re-digesters in the animal economy 248

89. Polar workings of the nucleus 250

97. Polar workings in nucleus during self-division 251

95. Formation of feminine seed-energy—karyostenosis 253

92. Propagation by copulation 254

93–96. The workings of seed-energy in animal life 255

100. Polar and equatorial views of centrosome and seed-string 257

98. An ancient Mongolian ideogram representing the atomic character-power in the universal or world-wide field of vitality and the two-foldness of individual character-power in human life 263

99. A Chinese ideogram of inner and outer discernment in human consciousness, the straining for knowledge of radio-active character-power, illustrating the **"exchange of all things against and for the one thing,"**—the ONE to-order-setting-power in the world 265

101. A Chinese ideogram of the necessary mental digestion of systematic ideas in the way of the "Reason of Living," in order to enable the mind to make characterful use of its ideas 266

102. A Chinese ideogram of logic **after the manner of nature** 266

103. Ideograms illustrating the difference between the syllogistic and the logical work of thought 267

104–105. Sacred vessels from the Chow dynasty, illustrating the two opposite kinds of intellectual workings, the scientific kind which deals with outwardness and the theological kind which deals with inwardness 267

106. Ancient Chinese ideogram which represents the scales of self-consciousness weighing both intuitive and word-vested knowledge 268

107. A Chinese cash 269

108. A Chinese ideogram of the inward and outward workings of the intellect 269

108½. An ancient Mongolian ideogram of the influence of intellectual development on the human mind; brutality, opinionated stupidity and foxiness become the distinguishing characteristics of the alphabetically enlightened mind 271

109. The Chinese Genius of its written language 272

110. Fu-hsi's Pa-Kua or 8 trigrams of the variable integral and differential factors of causation in the cyclic workings of life 273

111. Cross-sections of a chiastolite, showing the effects of bi-polar workings in the structural formation and re-formation of mineral matter, by reason of penetrating currents of substantial energy 274

112. A Celtic Cross, symbolic of to-order-setting principles of procedure 275

113. Lu Tung-Pin H'sien, one of the eight Chinese Immortals, personifying one factor in the integrity of the civilizing instinct 276

112. Chang Kuo Lao H'sien, personification of an immortal factor in the civilizing instinct 277

114. Ho H'sien Ku Shih, personifying the feminine factor in the civilizing instinct 277

115. A Chinese ideogram of the relation of the organizing power of old-time Spoken Thought to the systematizing power of modern Speaking Thought; and of the five animals representative of intellectual tool-development 278

116. An illustration of the character of Taoistic propaganda 279

117. A Chinese ideogram of a living criterion of certitude; illustrating the five intellectual faculties in their four-fold bearing and the powers to use these faculties rationally 280

118. A Chinese ideogram of the **"All out of one and the one out of all"** 280

119. Fu-hsi's and King Wan's trigrams of the variable integrals and differentials in natural causation 281

120. King Wan's arrangements of trigrams, showing his conception of the variable constituents in the families of digest-centers in human cell-life 282

121. Illustration of the character-powers egested from the digest-centers and surrounding it, to fit it into its environment 283

122. A Chinese ideogram of the unified workings of the mind and outer powers of the intellect 283

123. Another ideogram of similar meaning 284

124. A Japanese idea of the variable integrals which form the gammadion or symbol to procedure after fundamental principles—reciprocity and relativity 284

125. A Japanese Tree of Life or Jacob's Ladder 285

126. A Brahman Tree of Life in intellectual development 285

127. The counter-cyclings of the discerning powers to find the focus of to-order-setting character-power in all facts—the Kyriological digestion of evidences 285

128. The Yh-King Hexagrams formulating the logic of life and death, as aplicable to the process of civilization 286

129. Elementary development of mental organs 288

130. The advanced development of mental organs 289

131. Fy-hsi 290

133. An ideogram of fundamental principles (turned upside down by printer's error) 297

132. The intellectualizing power of Brahma, in the world-egg, has its rooting in the intuitive consciousness of diversified character energy in radio-active digest-centers 303

134. Chinese seal-signs of the four essentials to Fact-knowing; and the Pei-Tou or 7 star-sign (dipper), symbolic of the fourfooted and threelegged diataxis of the to-order-setting procedures in nature's workshop 314

135. The Trimurti and its connection with the third Brahmanic worldegg out of which are evolved the triple powers of the divinely human consciousness—the consciousness of the Reason of Living 314

136. A Celtic cross in circle as a symbol, illustrative of the inner workings of character-energy 327

137. Kneph, a personification of that mind-power which evolves the faculties of language in double-active and unifying ways, according to the principles of double-active nature 345

138. Le T'ieh Kuai Hsien, the last and the least of the Eight Immortal factors in the civilizing instinct, personifying the masculine tendencies subservient in Mother-wit, or Mother-consciousness (Kwan). The printer by mistake has turned the cut upside down 347

139. Xochitzinco, the beginning of the end; headless intellectuality, running wild in civilization, by language deluded 348

140. The World-clock from prehistoric America 323

141. The Time-piece of Creation from Ancient America 368

142,143,144 Polarization of light 381

147. The Egyptian Triunity symbol of to-order-setting powers in the intellectual work which controls civilization 363

148. Photograph of apparent polar-activity in the moon 376

149. The moon as a symbol of reflective thinking—a carriacature of our reflective knowledge, by a Haida Indian 377

150. Herakleitos of Ephesus, from an ancient coin 364

151. Herakleitos, after Bottari 365

152. The workings of bipolarity in self-dividing centers, illustrative of the workings of all atomic character-centers. The rhythmic workings of all individual character energy and in the fields of substantial and conscious energy cause the movements of tides and control the revolutions of the moon about the earth.

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